



U. S.
NAVY

Medicine



April 1975

UNITED STATES NAVY MEDICINE

Vol. 65

April 1975

No. 4

Vice Admiral D. L. Custis MC USN
Surgeon General

Rear Admiral D. P. Osborne MC USN
Deputy Surgeon General

Captain M. T. Lynch MC USN, **Editor**
Mrs. Virginia M. Novinski, **Assistant Editor**
Sylvia W. Shaffer, **Managing Editor**
Mrs. S. B. Hannan, **Graphic Arts**

Contributing Editors

Nephrology . . . CDR J.D. Wallin MC USN
Nurse Corps . . . CAPT B.G. Nagy NC USN
Psychiatry . . . CAPT R.E. Strange MC USN
Legal . . . CDR J.W. Kercheval II, JAGC USN
Fleet Support . . . CAPT J.W. Johnson MC USN
Dental Corps . . . CAPT E.E. McDonald DC USN
Naval Reserve . . . CAPT N.V. Cooley MC USNR
Head and Neck . . . CAPT R.W. Cantrell MC USN
Gastroenterology . . . CAPT D.O. Castell MC USN
Submarine Medicine . . . CAPT J.H. Baker MC USN
Research Medicine . . . CAPT C.E. Brodine MC USN
Education . . . CAPT W.M. McDermott, Jr. MC USN
Radiation Medicine . . . CAPT J.H. Dowling MSC USN
Marine Corps Medicine . . . CAPT D.R. Hauler MC USN
Preventive Medicine . . . CAPT C.E. Alexander MC USN
Medical Service Corps . . . LCDR J.T. Dalton MSC USN
Aerospace Medicine . . . CAPT F.H. Austin, Jr. MC USN
Occupational Medicine . . . CAPT G.M. Lawton MC USN

POLICY

U.S. NAVY MEDICINE is basically an official Medical Department publication inviting the attention of officers of the Medical Department of the Regular Navy and Naval Reserve to timely up-to-date items of official and professional interest relative to medicine, dentistry and allied sciences. The items used are neither intended to be, nor are they, susceptible to use by any officer as a substitute for any item or article, in its original form. The opinions and conclusions expressed in the articles or items included herein are those of the respective authors and do not necessarily represent the views of the Department of the Navy, the Bureau of Medicine and Surgery or any other governmental department or agency thereof.

DISTRIBUTION

U.S. NAVY MEDICINE is distributed to active duty Medical Dept. officers via the Standard Navy Distribution List (SNDL) vice personal addresses. Requests to increase/decrease the number of allotted copies are forwarded via the local command to *U.S. NAVY MEDICINE*, Code 0010, Bureau of Medicine and Surgery, Washington, D.C. 20372.

Retired and Reserve officers on inactive duty may subscribe by forwarding request with full name, rank, corps, status, address and zip code.

Notification of address changes should be forwarded together with a recent mailing label.

See inside back cover for additional information.

The issuance of this publication approved in accordance with NAVEXOS P-35.

NAVMED P-5088

C O N T E N T S

FROM THE CHIEF	2
GRÉETINGS TO NAVY DENTAL TECHNICIANS.....	3
THE NAVAL MEDICAL DATA SERVICES CENTER	4
<i>ENS A.F. Stonebraker, MSC, USN</i>	
NAVY MEDICINE — 1875	10
BUMED SITREP	22

PROFESSIONAL PAPERS

Metastatic Melanoma in Two Unusual Sites	8
<i>LCDR J.S. Sarkisian, MC, USNR</i>	
The Eagle Syndrome: Hemicrania Secondary to Elongated Styloid Process.....	11
<i>LCDR R.J. Kelly, MC, USNR</i>	
<i>CAPT F.E. Jackson, MC, USN</i>	
<i>CAPT D.P. DeLave, MC, USN</i>	
<i>LT J. Dunn, MC, USNR</i>	
The Gastroenterologists' Corner Therapeutic Endoscopy	17
<i>LCDR O.T. Nebel, MC, USNR</i>	
<i>LCDR V.D. Bradley, MC, USN</i>	
<i>CDR M.F. Fornes, MC, USN</i>	
Endoscopy-Associated Bacteremia: A Cause for Concern?.....	20
<i>M.D. Dickman, Ph.D.</i>	
<i>CAPT A.R. Chappelka, MC, USN</i>	

SCHOLARS' SCUTTLEBUTT	24
-----------------------------	----

LETTERS TO THE EDITOR.....	30
----------------------------	----

NOTES AND ANNOUNCEMENTS

Cockroach Control	7
Naval Aviation Museum Dedication.....	9
Advances in DOD Drug Testing	16
American Board Certifications	29
Awards and Honors	29
Excessive Raw-Food Costs.....	34
Professional Grooming Standards	34
Family Practice Physicians at Nav Hosp Memphis	34
Joint Armed Forces Dental Exhibit	35
Casualty Care Training Program	36
Preventive Dentistry Films.....	36
Comprehensive Dentistry Program	36
New Portable Life-Support Equipment	36
Perinatal Monitoring System at NAVREGMEDCEN Oakland.....	38
Remodeled Lab for NAVREGMEDCEN Yokosuka	38
Gum Powder Heals Bed Sores	40
Joseph Earle Moore Symposium on Sexually Transmitted Disease	40
Viral Hepatitis ... (Type A & B).....	41
More on Hepatitis	42
Human Goals	42
Brotherhood of Goodwill Donates Turkeys	43
Emergency Medical Course at Nav Hosp Memphis	44

Credits: All pictures are Official Navy Photographs unless otherwise indicated.

Featured on our front cover are typical staff members of the Operations Division, Naval Medical Data Services Center, which is concerned with coordination and operation of all digital computing equipment, unit record equipment, and other media conversion devices in the Navy Medical Department. Attention is invited to the feature article, "The Naval Medical Data Services Center," pp 4-7.

The continued support of the Media Division, Educational Programs Development Dept., Health Sciences Education & Training Command (HSETC), NNMC, Bethesda, Md., is gratefully acknowledged.



from the Chief

The rumored demise of *U.S. Navy Medicine* has been grossly overestimated. It has also provoked many letters and phone calls registering concern, regret and protest, as well as inquiries from members of Congress.

Details of the recent budget decision, exclusively targeting the resources supporting this medical journal, were accurately reported in the 1 February 1975 issue of *U.S. Medicine*. The imputation as regards motive, however, was of necessity a matter of conjecture.

What needs be clarified is that publication of *U.S. Navy Medicine* will continue as a vital communications medium to all members of the Navy Medical Department. This appraisal of its value and its need has the concurrence of the Chief of Naval Operations.

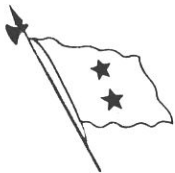
Plans for editorial staff reorganization, consolidation with other BUMED publications, restrictions on circulation, and other cost economies are now being finalized and will soon be announced. There may be some changes in journal format, but its quality as a house organ providing information on managerial proposals and policy guidance as well as publication of original clinical and research papers will be maintained.

Not long ago *U.S. Navy Medicine* was singled out from among the many Navy journals for the CHINFO Merit Award Certificate. Recognition was thus accorded for "As the best in its magazine category."

With the continued fine support of you, its contributors, its readers and its advocates, we intend to keep it so.

Please let us hear from you.





DEPARTMENT OF THE NAVY
ASSISTANT CHIEF OF THE BUREAU OF MEDICINE AND SURGERY FOR DENTISTRY
AND
CHIEF OF THE DENTAL DIVISION
WASHINGTON, D.C. 20372

NAVY DENTAL TECHNICIANS

April 2, 1948-1975

It gives me great pleasure to extend to all of you congratulations and best wishes on the occasion of the Twenty-seventh Anniversary of the Dental Technician Rating.

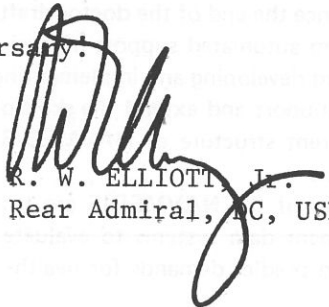
Throughout the years, many challenges have been offered and met by Navy Dental Technicians. Your "can do" spirit, devotion to duty, and deeds of valor are well known, earning the respect and admiration of all with whom you have served.

The future promises many new and challenging opportunities. Innovative training programs are already being developed and implemented in the Dental Technicians School. Initial results are most satisfying.

The entrustment of the responsibility for the health and well-being of the men and women who serve our Nation is, I believe, the greatest honor that can be bestowed.

You are assured of the Dental Corps' support, and together we will meet any new challenges that may lie ahead.

Warmest regards and Happy Anniversary!


R. W. ELLIOTT, JR.
Rear Admiral, MC, USN

The Naval Medical Data Services Center

By ENS A.F. Stonebraker, MSC, USN
Special Projects Officer
Naval Medical Data Services Center
Bethesda, Maryland 20014

The evolution of the Naval Medical Data Services Center (NMDSC) has been shaped by 2 dynamic forces: the need of the Navy Medical Department to develop more efficient methods of global health care delivery, and steady advances in computer technology.

In the decade since its establishment on 1 Jul 1965, the NMDSC has provided, coordinated, and controlled centralized data-processing services for naval medical statistical systems, as well as other worldwide data systems. The Center's mission is accomplished through use of the Navy Medical Information System (NAVMEDIS), which now includes all data-processing functions of the Medical Department. Originally, however, NAVMEDIS and its discrete subsystems were used to support only administrative and management-related functions, since it seemed the greatest economy could be realized through automation of the repetitive clerical tasks associated with accounting, medical supply, and payroll operations.

Recently, especially since the end of the doctor draft, emphasis has shifted from automated support of business-type activities toward developing and implementing computer systems that support and extend the skills of the physician. The current structure of NAVMEDIS reflects this new emphasis.

The primary objectives of the NAVMEDIS are to:

- Design and implement data systems to evaluate health-care activities, and predict demands for health-care resources.

The opinions or assertions contained herein are those of the author and are not to be construed as official, or necessarily reflecting the views of the Navy Department or the naval service at large.

- Maintain and improve the quality of health-care services through the use of advanced computer technology, at an acceptable cost. (The cost of data-processing support must be consistent with the benefits obtained.)



THE REEL THING.—At NMDSC, ENS A.F. Stonebraker, MSC, USN places a tape on a tape drive. The data contained on 1 reel of magnetic tape is equivalent to a 90-foot stack of punched cards.



UNIVAC.—LCDR R.A. Payton, MSC, USN (standing) and LT R.W. Gibson, MSC, USNR review one of the many Medical Department automated systems executed on the UNIVAC 418-II computer at Bethesda. LCDR Payton is XO of the NMDSC; LT Gibson is chief of the Operations Division.

- Support the health-care team through improved methods of recording, processing, retrieving, and displaying medical, clinical, and patient information, thus reducing medical professional involvement in clerical tasks associated with patient care.

- Absorb increasing patient-care workloads at present level of resources, through improved responsiveness of administrative-support services.

- Provide a centralized patient-data base within medical regions to improve the recording, transmission, and retrieval of patient information.

- Improve systems design to reduce the time required for field medical facilities to report department levels.

These objectives are achieved through 2 approaches: 1 approach designed for traditional business applications, the other designed for clinical applications.

ADMINISTRATIVE/MANAGEMENT SYSTEMS

Most areas of the Navy Medical Department now have some contact with, or dependence upon existing data-processing systems. The NMDSC staff of computer programmers and system analysts have, over the years, constructed an extensive inventory of system applications, ranging from pure business uses to such patient-oriented procedures as the recording of workload and epidemiologic statistics. Current activity is directed toward refinement, consolidation, and standardization of existing systems.

When additional computer hardware resources were needed to support current operational programs, the



LIBRARY SEARCH.—The NMDSC library of medical data holds nearly 4000 reels of magnetic tape. Here Mrs. E.T. Brown, tape librarian, searches for a specific tape to fill a customer's request.



TERMINAL.—LCDR R.A. Payton, MSC, USN modifies a program with the use of a cathode-ray-tube conversational terminal. With this device, system designers at NMDSC, as well as users at BUMED and NNMC, can tap the computer resources of the National Institutes of Health or of INFONET.



ASK AN EXPERT.—Mr. Ray Loraski (foreground), a computer operator at NMDSC, explains the intricacies of the UNIVAC 418-II computer console to students from the Naval School of Health Care Administration.

NMDSC sought the help of the National Institutes of Health, Division of Computer Research and Technology (NIH-DCRT), which made available an impressive array of data-processing hardware, including a recently installed IBM 370/168 computer.

Through the use of remote computer terminals located at the National Naval Medical Center (NNMC), Bethesda, Md., at the Bureau of Medicine and Surgery (BUMED), and at NMDSC, and with the support of a high-speed remote job entry (RJE) device located at NMDSC, a number of advanced systems has been developed. These new systems include the Bureau of Manpower Management Information System (BUMIS), an interactive computer system used by the BUMED Professional Division; the Medical Facilities Planning System used by BUMED architects; a military personnel information system used at NNMC; and an immunization reporting system used by the Naval Regional Medical Clinic, Washington, D.C.

To enable other naval medical activities to benefit from modern information management techniques, the NMDSC entered into a contract with the Computer Sciences Corporation Information Network (INFONET) in the spring of 1974. INFONET is a telecommunications system linking 12 regions across the country to a bank of 4 UNIVAC 1108 computers in El Segundo, Calif.; it allows geographically disbursed activities to interact with a common computerized data base through the use of remote terminals. Although the use of INFONET is still being evaluated, the NNMC Hospital Inpatient System has already been adapted to the INFONET computer, and design work is progressing on similar application of standard medical supply and fiscal/accounting systems.

CLINICAL SYSTEMS

Early in 1973, a clinical projects staff was established at NMDSC to assist BUMED in acquiring patient-care-oriented, data handling and support capabilities. The clinical projects staff has been responsible for many exciting developments in Navy medical-data processing, and will continue to play an important role in the future development of hospital information systems.

As part of the triservice medical information system (TRIMIS), the clinical projects staff is involved in the following projects:

Laboratory Information System (LABIS). This system automatically traces and records all clinical laboratory test results for a facility. Results can be retrieved via a cathode-ray tube device that is similar to a television screen. The prototype LABIS was installed at NNMC in 1974, and has greatly reduced the time required to obtain results of laboratory tests.

Computer Assisted Practice of Cardiology (CAPOC). This system enables medical facilities within a geographical region to transmit electrocardiogram (ECG) impulses electronically, and to obtain timely computer interpretation of ECG results. Abnormal ECG reports are flagged for additional evaluation by a cardiologist.

Outpatient Appointment Scheduling Information System (OASIS). Through this system the time required to make outpatient appointments is reduced, and the availability of appointments is improved. Meaningful workload statistics are also generated.



BUMIS DEMONSTRATION.—Computer specialist Mr. R.E. Nemes (seated) demonstrates the BUMED Manpower Management Information System (BUMIS) for RADM C.L. Waite, MC, USN (left) and RADM E.J. Rupnik, MC, USN (right), at the 1974 Surgeon General's Conference. Representatives of the NMDSC Systems Division also demonstrated the worldwide inpatient history files, medical facilities planning, and hospital inpatient systems.



ORIENTATION.—LT Steven Smith, MSC, USN (right), a member of the NMDSC staff, takes students from the Naval School of Health Care Administration through the Center's data-processing facilities.

CENTER ORGANIZATION

The NMDSC is commanded by CDR B.J. Dietz, MSC, USN, and is a tenant command at NNMC. CDR Dietz is additionally assigned as the special assistant for data processing to the Chief, BUMED.

Besides the development work described above, a wealth of required and ad-hoc reports is produced each day at the Center. The Automatic Data Processing (ADP) Installation Management Unit coordinates all field ADP activities, and manages the ADP portion of the BUMED budget. The coordination effort involves

not only the maintenance of a complete inventory of all Medical Department ADP equipment, but the monitoring of ADP training and systems developed for local use at each medical-data-processing activity. In this manner, the integration of the total NAVMEDIS is sustained.

The Operations Division, staffed 24 hours a day to maintain the heavy production schedule, supports such demanding customers as the Statistics Division, an integral part of the Center. The Statistics Division is responsible for the review, analysis, and control of data received from Navy medical facilities, and for the subsequent formulation and distribution of completed statistical reports, including *Statistics of Navy Medicine*, and *Medical Statistics — U.S. Navy*.

The numerous special reports produced at the NMDSC typically involve a concerted effort by several divisions. Covering a broad range, from disease incidence to length of hospital stay or professional staffing levels, requests for information are initially processed by the Statistics Division, which acts as point-of-contact for the various NMDSC customers. Most requests involve information that is contained on magnetic tape in the Center's extensive historical library. Before the raw data on tape can be disseminated in a finished report, however, a program must be written to extract and format the information, and the actual production run on the computer must be scheduled.

Overall, then, the Naval Medical Data Services Center can best be described as an organization dedicated to delivering the fruit of advancing technology, to satisfy the needs of Navy medicine. ☸

COCKROACH CONTROL

A pyrethrum aerosol bomb, a flashlight, and hard work provide the beginning for an effective cockroach-control program. Like any invader, cockroaches must be located before they can be destroyed.

Current regulations of the Environmental Protection Agency prohibit the use of insecticide barrier-strip applications in food-service spaces, including those aboard naval vessels. Only crack and crevice treatment is authorized in these spaces. These control-technique limitations emphasize the value of, and necessity for conducting frequent and thorough surveys. Treating known, specific harborage areas will provide effective chemical control.

Don't give up. Control is not impossible. Remember, a proper survey and proper sanitary conditions aboard ship are the keys to success. Combining these 2 ingredients with the proper application of insecticide will launch an effective control program aboard your ship.—*Pacific Health Bulletin*, No. 71, Jan 1975. ☸

Metastatic Melanoma in Two Unusual Sites

By LCDR James S. Sarkisian, MC, USNR*

Naval Regional Medical Center

San Diego, California 92134

Metastatic bone tumors may mimic many systemic disease processes, as well as many primary tumors of bone. Metastatic lesions may be found in any bone, but are rarely encountered distal to the elbow or distal to the knee.

Malignant melanoma is a particularly aggressive and bizarre lesion which rarely spreads to bone; yet metastatic lesions have been documented, involving areas such as the tip of the nose, and even the last coccygeal bone. This report involves a rare instance of metastatic melanoma presenting in the distal ulna and os calcis bones, in a young man. The paper serves to emphasize the bizarre nature of this tumor.

CASE REPORT

This 23-year-old man was referred to the Orthopedic Service because of a tender mass involving the left distal ulna. Three months previously he had sustained minimal injury to the same region during a sand-lot football game.

His past medical history was insignificant except for apparent symptoms of peptic ulcer disease several years ago. He had developed a small red-brown, intermittently bleeding lesion behind his right ear; the lesion was said

to have been treated one year ago by a dermatologist who performed a curettage, established a diagnosis of angioma, and did not obtain further histologic examination.

The physical examination revealed no unusual findings except for the hard 2 x 3 x 3 cm tender bony mass situated in the region of the left distal ulna. There was no lymphadenopathy present. X-ray studies revealed an eccentric, destructive lesion in the left distal ulna with 2 types of periosteal response: one appeared hard and circumferential, in several layers; the other assumed a friable trabecular pattern, radiating from the lytic lesion. (See Figure 1.)

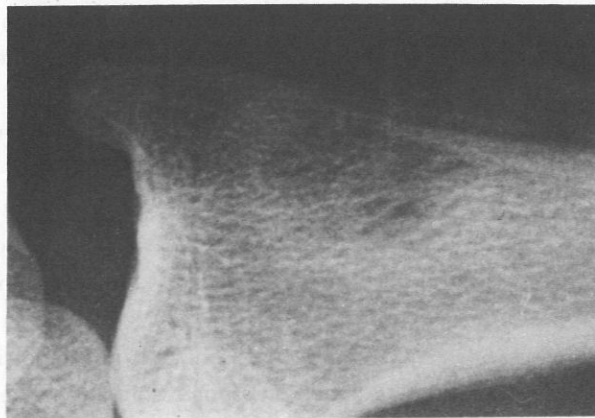


Figure 1.—Note the friable trabecular arrangement radiating from the lytic lesion demonstrated by X-ray study.

The opinions or assertions contained herein are those of the author and are not to be construed as official, or necessarily reflecting the views of the Navy Department or the naval service at large.

*Department of Orthopedics.

Dr. Sarkisian is presently a member of the staff at the Naval Regional Medical Center, Camp Pendleton, Calif.

Appropriate laboratory studies included a leukocyte count of 6,900/cu mm, with normal differential; sedimentation rates were 0-5 and 0-6 mm in 1 hr. The serum alkaline phosphatase, calcium, and phosphorus determinations were all reported within normal range. A positive skin test reaction to mumps antigen was observed.

The differential diagnosis included:

- 1) Low-grade osteomyelitis
- 2) Osteogenic sarcoma
- 3) Ewing's sarcoma
- 4) Eosinophilic granuloma, and
- 5) Metastatic tumor.

At surgery a blue domed lesion was encountered, with thickened periosteum. A window of bone was removed from this area, at which time a brown material exuded from the drill holes. (See Figure 2.) Further microscopic study of frozen and permanent tissue sections revealed a highly cellular tumor with melanin-producing anaplastic cells. The diagnosis of malignant melanoma was established. (See Figure 3.)

Treatment was initiated in coordination with the Radiation Therapy and the U.C.L.A. Oncology Departments. A dose of 2,800 rads was administered to

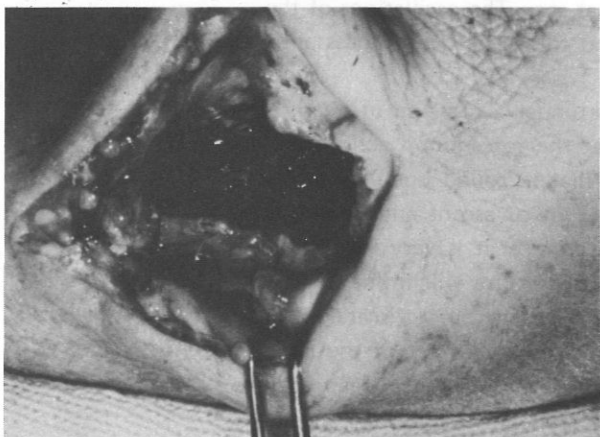


Figure 2.—Blue domed lesion with thickened periosteum

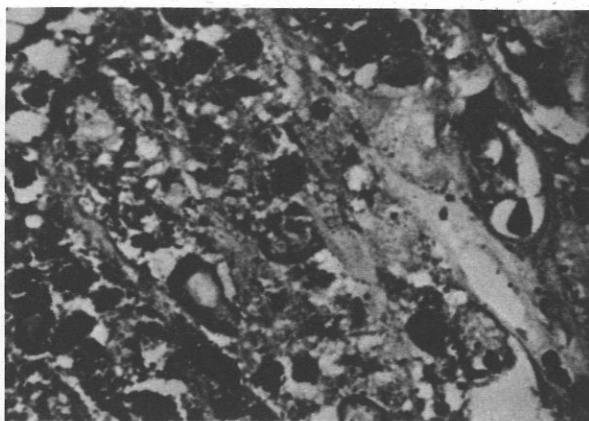


Figure 3.—Microscopic examination of frozen section revealed a highly cellular tumor with melanin-producing anaplastic cells.

the tumor area, and systemic B.C.G. therapy was instituted according to protocol. A careful search was made for the primary tumor source, with careful ophthalmologic and dermatologic examinations, and liver-spleen, brain, and bone scans. All these efforts proved unproductive.

The patient developed pain 3 months later in the left os calcis, where 2 small lytic areas were demonstrated. Treatment consisted of 600 rads directed to the left os calcis bone. The patient presented no further evidence of other metastasis at the time of this reporting.

REFERENCES

1. Hiebish TF: Roentgenographic manifestations of malignant melanoma. *Am J Roentgenol* 78:769-779, 1957.
2. Paul RG: Pathologic fractures from metastatic malignant melanoma. *Clin Orthop* 90:255-261, 1973.
3. Selby HM: A roentgenographic study of metastasis from melanoma. *Radiology* 67:224, 1956.
4. Steiner GM: Metastasis to bone from malignant melanoma. *Clin Radiol* 23:52-57, 1972.
5. Wilner D: Bone metastasis in malignant melanoma. *Am J Roentgenol* 62:388-394, 1949. ☛

NAVAL AVIATION MUSEUM DEDICATION

A historic event in Navy/Marine Corps aviation will occur on 13 Apr 1975, when the Naval Aviation Museum is dedicated at NAS Pensacola, Fla. This event will be of national significance, and will be attended by many distinguished visitors. All Navy and Marine Corps personnel are cordially invited to attend.

CDR W.F. Hampton, USN, has been designated as the Naval Aviation Museum dedication project coordinator. Telephone Number: (904) 452-3604; Autovon: 922-3604.—BUMED Code 01A. ☛



NAVY MEDICINE — 1875

ASIATIC STATION.—Medical Inspector Thomas J. Turner reports upon conditions aboard the USS *Tennessee*:

I can only group here some isolated facts in the hygienic history of the *Tennessee*. The great length, narrow beam, and draft of water render this ship a very comfortable one at sea. The oscillations of the vessel are even and slow. I am disposed to ascribe sea-sickness almost entirely to these movements.

When it is remembered that we live under a pressure of nearly 15 pounds to a square inch of surface, that the force-pump action of the heart is estimated at $13\frac{1}{2}$ pounds, and that in round numbers the barometer falls .001 of an inch for every foot of ascent and diminishes the pressure on the body by nearly 32 pounds, it is very readily seen that the slightest diminution in the aerial pressure will influence the flow of the current of blood from that organ to other viscera. The irregular, minute, but absolute reduction in the pressure of the air by the alternate rising and falling of the ship, her shallow or deep rolling, with the irregular respiratory movement consequent upon her motion, affects the column of blood sent to the brain and medulla. The headache, general indifference, and finally the nausea and vomiting are but reflected phenomena from the disturbance in the pneumogastric tract. The general system soon tolerates or rather adapts itself to the unnatural movement and the subject is soon freed from "the disease of the sea." These physical facts have led me to add this to the various opinions concerning the causes of nausea marina.—*Hygienic and Medical Reports by Medical Officers of the U.S. Navy*, prepared for publication under the direction of the Surgeon-General of the Navy, by Joseph B. Parker, A.M., M.D., Surgeon, U.S. Navy, Assistant to the Bureau of Medicine and Surgery. Washington: Government Printing Office, 1879, pp. 120-121. ☛

THE EAGLE SYNDROME

Hemicrania Secondary to Elongated Styloid Process

By LCDR R.J. Kelly, MC, USNR*
CAPT Frederick E. Jackson, MC, USN**
CAPT Daniel P. DeLave, MC, USN†
LT Jack Dunn, MC, USNR††
Naval Regional Medical Center
Camp Pendleton, California 92055

The neurosurgeon, otologist or neurologist is often confronted by a patient with facial pain and hemicrania of obscure etiology. Sluder's neuralgia, glossopharyngeal neuralgia, Horton's neuralgia, atypical trigeminal neuralgia and vidian neuralgia have all been described, and there are patients whose symptoms appear to fit readily into one of these syndrome patterns.

However, there are some patients whose obscure facial and hemicranial pain does not fit into the usual syndrome, and who are not relieved by the usual therapeutic methods. These patients are often labeled neurotic. Recently we have had a patient who called our attention to the fact that facial pain, carotid pain and hemicrania may be caused by an elongated styloid process, the "Eagle Syndrome."

The following report is submitted as an illustrative example of this syndrome.

CASE REPORT

A 46-year-old dependent wife was admitted at the Naval Hospital Camp Pendleton, Calif., on 23 Oct 1973, complaining of pain in the area of the angle of her right jaw (See Figure No. 1), intermittent dizzy and blackout spells, and intermittent episodes of decreased vision in her right eye. The patient denied any history of trauma to the area, and also complained of frequent headaches localized in the right preauricular region.

Physical examination was unremarkable except for tenderness of the angle of the right jaw. Results of appropriate laboratory examinations were all within normal range; mastoid and temporomandibular X-ray studies disclosed no abnormalities.

The frontal and temporal sensory branches of the right facial nerve were infiltrated with a local anesthetic agent, but this procedure did not relieve the headaches. The patient continued to experience attacks of blurred vision in the right eye, and blackout spells. She was seen in oral surgery consultation where it was noted

The opinions or assertions contained herein are those of the authors and are not to be construed as official, or necessarily reflecting the views of the Navy Department or the naval service at large.

This work was partially supported by the Department of the Navy, Bureau of Medicine and Surgery Research Unit No. M4318.01.

*Department of Otorhinolaryngology

**Formerly Chief of Neurological Surgery, now retired: 4933 Conejo Road, Fallbrook, California 92028.

†Chief of Otorhinolaryngology

††Department of Neurosurgery

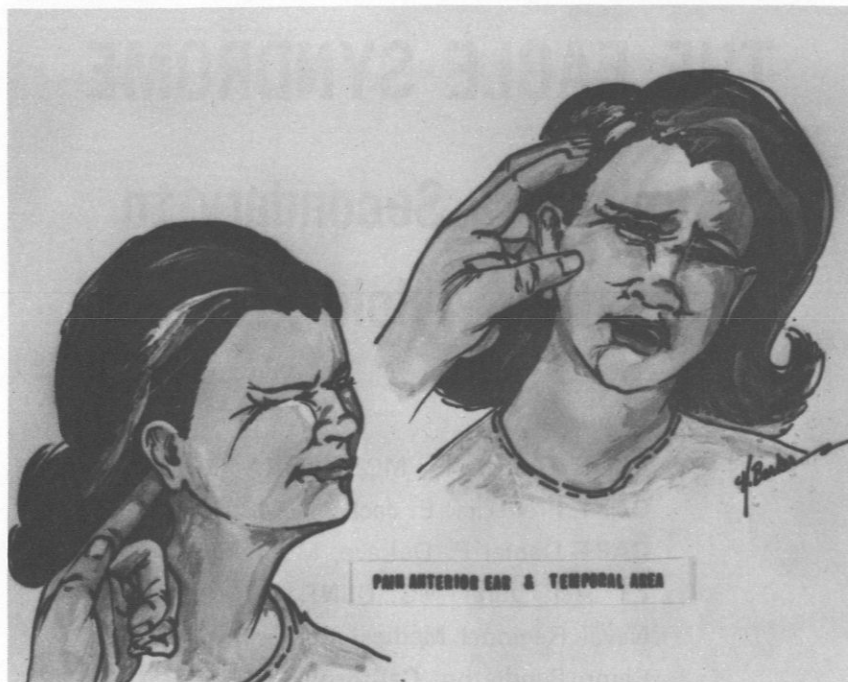


Figure 1.—Artist's sketch depicts temporal and auricular radiation of pain in a patient with elongated symptomatic styloid process, "the Eagle Syndrome."

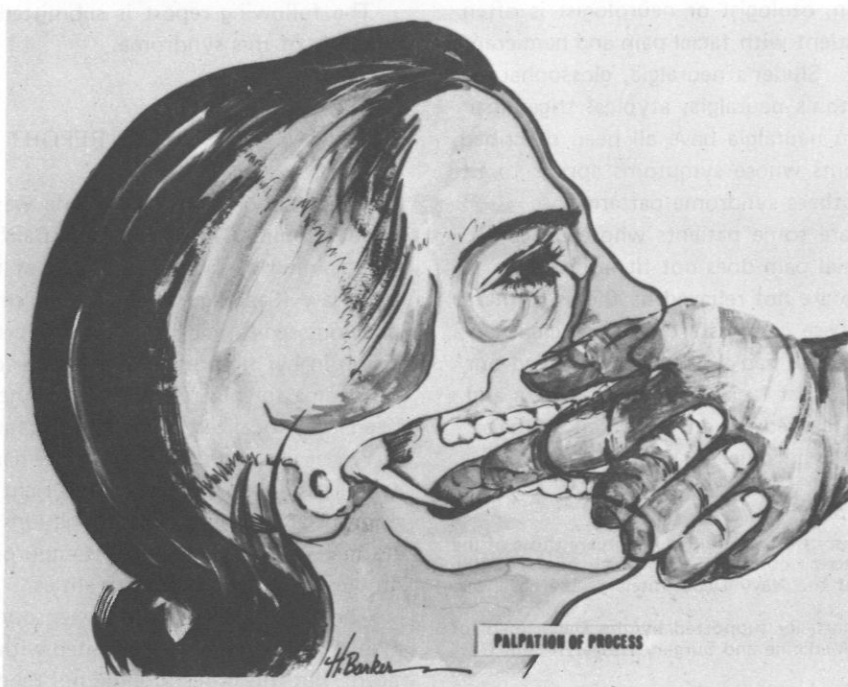


Figure 2.—Diagnosis by intra-oral palpation of an elongated and tender styloid process. The styloid process is not normally palpable.

that the patient's false teeth had worn down; accordingly new impressions were taken and new dentures were made, but this failed to provide symptomatic relief. An aortic arch angiogram was performed on 30 Oct 1973, which revealed no unusual findings; specifically there was no sclerosis or block of the carotid or vertebral arteries. No etiologic basis for facial and temporal pain, and hemicrania, could be established. The patient was discharged from the hospital, but was subsequently readmitted the next month with continuing pain in the right temporal area, and intermittent dizzy spells.

On repeat examination there was definite tenderness to palpation, both intra-orally and externally, over the tip of the right styloid process. (See Figure No. 2.) Townes-view X-ray (Figure No. 3) and lateral tomogram (Figure No. 4) studies revealed an enlarged right styloid process measuring 45 mm in length; the tip of the process angled medially toward the carotid sheath. Infiltration of the styloid process with a local anesthetic agent provided complete relief of symptoms. A styloid process resection was performed on 8 Mar 1974, via a submandibular approach. (See Figure No. 5.) Following this surgery the wound healed per primum, and the patient was discharged to home. She has had no further facial pain, temporal headaches, nor dizziness.

DISCUSSION

The first report that an elongated styloid process could well cause atypical facial and pharyngeal pain, and otalgia, was published in the *JAMA* in 1896, in an article written by Stirling.⁷ It was, however, the otolaryngologist, Watt Eagle^{1,2,3,4} of Duke University, who popularized the syndrome (1937). Eagle further contributed to its recognition by dividing the styloid-process syndrome into 2 categories. The first is the "classic syndrome" in which the patient complains of persistent pain in the pharynx, aggravated by deglutition, following tonsillectomy. The pain is often referred to the ear on the side of the elongated styloid process. The second symptom category delineated by Eagle was the "styloid process-carotid artery syndrome," which may occur whether or not the tonsils have been removed. The elongated styloid process on the affected side impinges upon the carotid artery with resultant carotodynia, tenderness on palpation of the carotid artery and intermittent frontal or temporal headaches, otalgia, and dizzy or blackout spells.

Three muscles are attached to the styloid process, one extending to the pharynx, one to the tongue, and

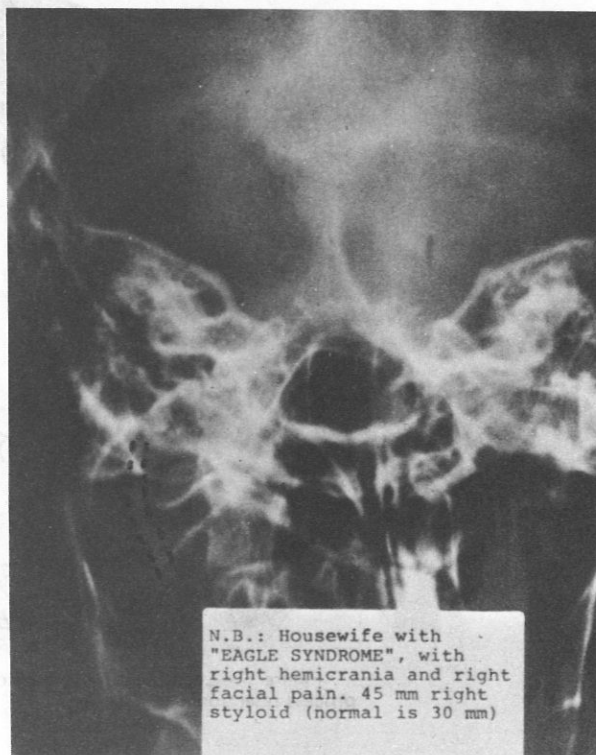


Figure 3.—Townes-view X-ray study reveals enlarged styloid process on the left (dotted lines), angulating medially to impinge on the carotid sheath.

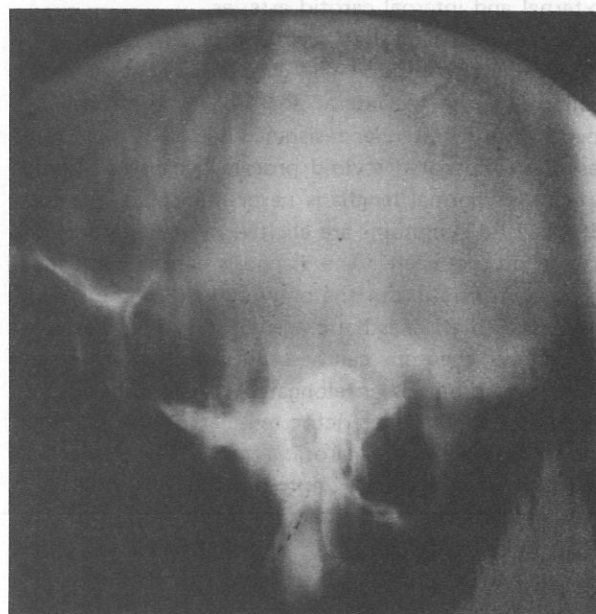


Figure 4.—Lateral tomogram study confirms the presence of elongation of the right styloid process.

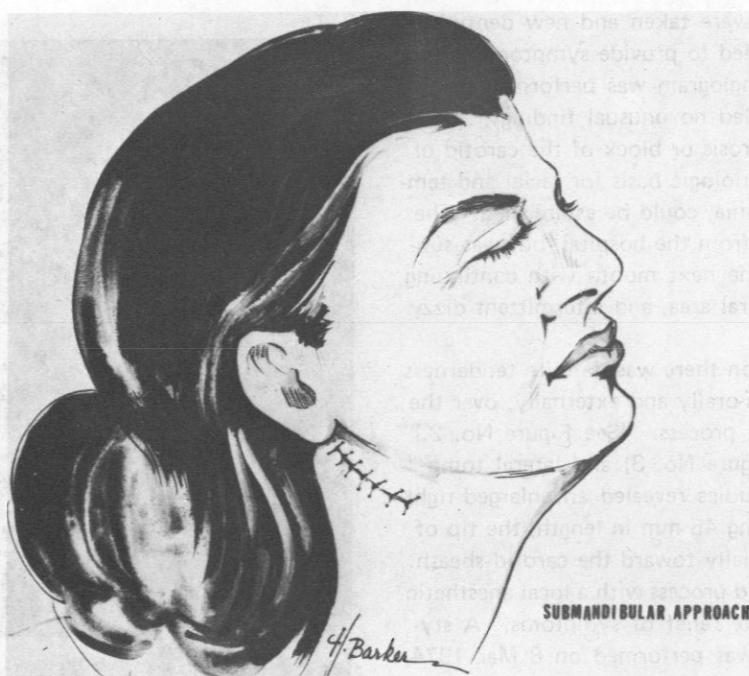


Figure 5.—Location of the incision for submandibular approach to styloid process resection.

one to the hyoid bone. There are 2 ligaments attached to the styloid process; the smaller is the stylohyoid ligament, and the larger is the stylomandibular ligament. The tip of the normal styloid usually lies between the external and internal carotid arteries.

The diagnosis of the "styloid process syndrome" is not difficult to make. The gloved finger is inserted transorally into the lateral pharynx, to the tonsillar fossa. If a firm, tender resistance is met, it must represent an elongated styloid process because a styloid process of normal length is never palpable. The specific painful symptoms are elicited by palpation of the styloid process itself. The diagnosis can be confirmed by local infiltration of the body and tip of the styloid process with an anesthetic agent. If symptomatic relief follows, then one can be quite sure that the genesis of the symptoms is an elongated styloid process, impinging upon the constrictor muscles of the pharynx and, occasionally, the carotid artery. The suspected diagnosis of elongated symptomatic styloid process may be confirmed by obtaining X-ray studies of the skull, in the anteroposterior and Waters views. The normal styloid process (See Figure No. 6) does not exceed 30 mm in length.⁵ Four percent of all individuals have abnormal elongation of one or both styloid processes. (See Figure No. 7.) Although both styloid processes are frequently elongated and palpable,

in the vast majority of the cases only one side is symptomatic.

The only specific treatment is surgical removal of the styloid process,⁶ either by an intra-oral approach or, as we prefer, a submandibular approach making a one-inch incision immediately under the mandible, centered at the mandibular notch. Once the skin is separated, the examining finger offers the best guide for locating the elongated process which can be easily felt. The stylohyoid ligament is then easily visualized and divided, and the elongated styloid process, which appears as a shiny ivory-white rod, is resected as far towards its base as is possible.

SUMMARY

A case of severe hemifacial pain with radiation into the anterior auricular, frontal and temporal areas, associated with blurred vision and dizzy spells, is presented. The patient's symptoms were temporarily cured by local injection of lidocaine around the elongated styloid process. The symptoms were permanently relieved by resection of the abnormally long styloid process. The salient diagnostic and radiologic features of the "symptomatic elongated styloid process" (the Eagle Syndrome) are presented.

REFERENCES

1. Eagle WW. Elongated styloid process. Report of two cases. *Arch Otolaryngol* 55:254, May 1927.
2. Eagle WW. Elongated styloid process. Symptomatology and treatment. *Arch Otolaryngol* 64:123-78, Feb 1950.

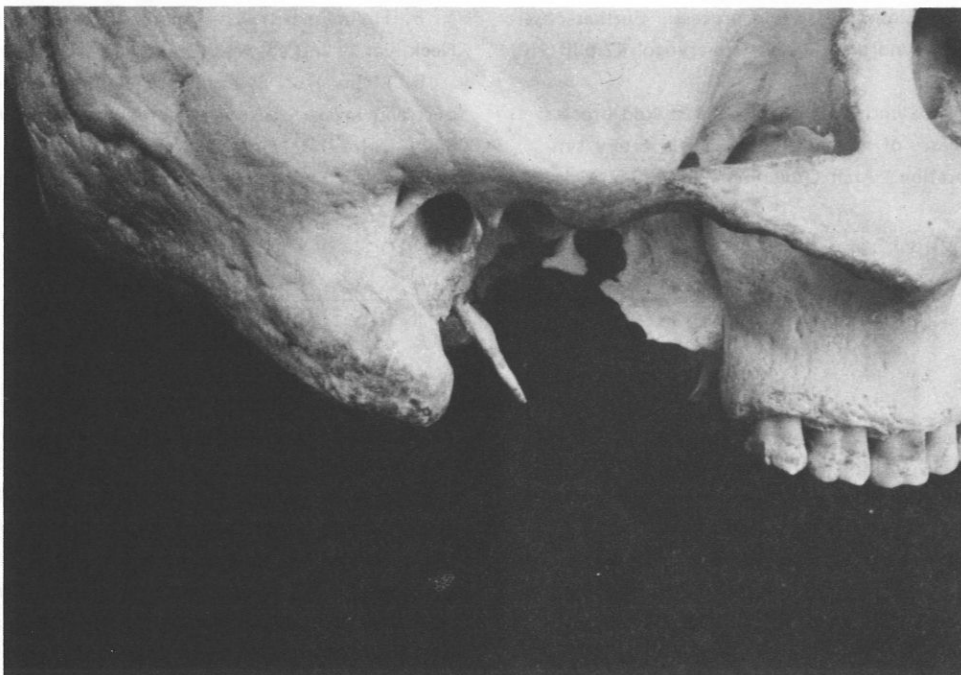


Figure 6.—Photograph of long styloid process, but within the upper limits of normal length of 30 mm.

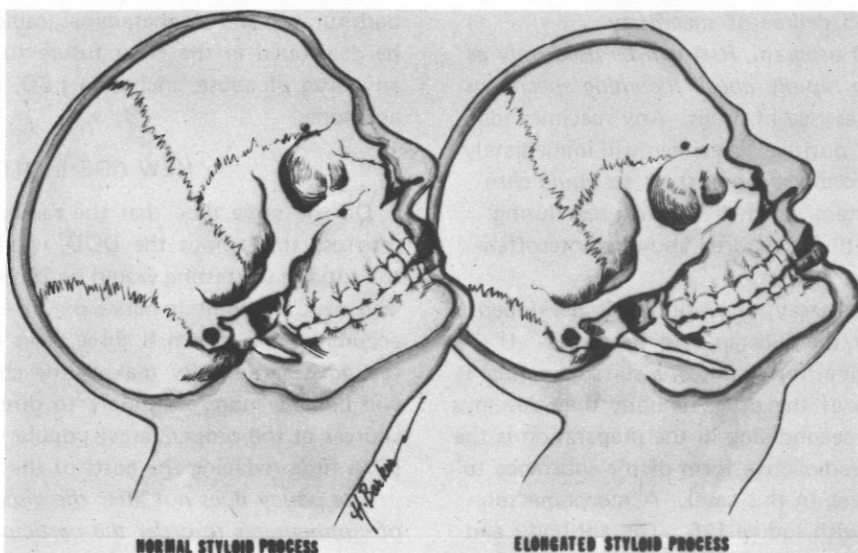


Figure 7.—Comparison of a normal styloid process (which should not exceed 30 mm in length), and an abnormally elongated styloid process.

REFERENCES

1. Eagle WW: Elongated styloid processes: Report of two cases. Arch Otolaryngol 25:584, May 1937.
2. Eagle WW: Elongated styloid process: Further observations and a new syndrome. Arch Otolaryngol 47:630-640, May 1948.
3. Eagle WW: Symptomatic elongated styloid process: Report of two cases of styloid process-carotid artery syndrome with operation. Arch Otolaryngol 49:490-503, Jan-Jun 1949.
4. Eagle WW: Elongated styloid process: Symptoms and treatment. Arch Otolaryngol 64:127-176, Feb 1958.
5. Hollingshead WH: Anatomy for Surgeons: Head and Neck, vol 1, 2nd ed, New York, Harper & Row, 1968.
6. Mabry RL: Symptomatic elongated styloid: Case report and review of surgical technique. Arch Otolaryngol 96: 84-85, Jul 1972.
7. Stirling AW: On bony growths invading the tonsil. JAMA 27:734, 3 Oct 1896. ☞

ADVANCES IN DOD DRUG TESTING

On 1 Jul 1974, radioimmunoassay became the basic testing device throughout the Department of Defense in its drug abuse counteroffensive.

The technique, as developed by the U.S. Air Force School of Aerospace Medicine, Epidemiology Division, Brooks AFB, Texas, is essentially a "hands off" system which will permit the military departments to save on personnel and testing expenditures.

Radioimmunoassay (RIA) combines the sensitivity, which can be achieved through the use of radioactive materials detectable in very small concentrations, with immunology which permits the identification of substances with a high degree of specificity.

Within the DOD program, *RIA will be used only as a screening test to rapidly check incoming specimens for the possible presence of drugs.* Any specimen identified by RIA as a "positive" specimen will immediately receive a *separate confirmatory test by gas liquid chromatography*, a system which has been used during the three years of the DOD drug abuse counteroffensive.

In a radioimmunoassay, an antibody is developed that is specific for the substance to be tested. If the assay is for morphine, for example, a suitable animal is given a small dose of the drug; its body then develops an antibody. The second step in the preparation is the development of a radioactive form of the substance to be tested, (morphine, in this case). A morphine solution is "labelled" with Iodine-125. The antibody and the I-125-labelled morphine antigen are then combined, and the antigen-antibody mixture is used in the radioimmunoassay.

An automatic dilutor mixes the antibody/I-125-labelled antigen with a small amount of the urine specimen, after which the mixture stands for one hour at

room temperature. *If the individual who gave the specimen has been using morphine or one of its derivatives, the drug will be present in the urine specimen.* In this case, the nonradioactive morphine from the specimen and the radioactive morphine which has been labelled in the laboratory would compete for the antibody that is present in the test solution. The result is a displacement of radioactive morphine from the antibody in the test solution, a displacement which is measurable by an increase in counts. The increased radioactivity is measured in a scintillation counter.

In addition to detecting morphine and its derivatives, barbiturates, and amphetamines, radioimmunoassay may be developed in the early future to detect just about any drug of abuse, including LSD, cocaine, and methaqualone.

NEW AGE LIMIT

On the same date that the radiimmunoassay went into use throughout the DOD, it was announced that the top age for testing would be 25 instead of 26 years. The new age limit is based on an evaluation of data accumulated in the first three years of the DOD drug testing program. By making the change, the DOD will be able more accurately to direct its testing resources at the proper target population, while at the same time reducing the costs of the program.

The policy does not alter the discretionary authority of commanders to order the participation of all members of a unit, regardless of age, in random unit screens for drug abuse. Commanders and medical officers may also order drug abuse testing for any member of the Armed Forces who is suspected of drug abuse.—Information Guidance Series, No. 5A-2, (Rev1) Mar 1975, DOD Office of Information for the Armed Forces. ☞

THE GASTROENTEROLOGISTS' CORNER

Therapeutic Endoscopy

By LCDR O.T. Nebel, MC, USNR

LCDR V.D. Bradley, MC, USN

and

CDR M.F. Fornes, MC, USN

The clinical efficacy and excellent patient acceptance of fiberoptic gastrointestinal endoscopy has resulted in a marked reduction in the use of the older rigid, and semi-rigid gastrointestinal endoscopes. Only the rigid sigmoidoscope appears to have withstood the onslaught of fiberoptic instrumentation, and many of these instruments feature fiberoptic illumination. The rejection of rigid gastrointestinal endoscopy by gastroenterologists in favor of the flexible fiberscope has caused sorrow and concern in some quarters, and a few voices have been heard crying for a return of rigid endoscopy to the gastrointestinal clinic.

One of the strongest arguments in favor of the rigid endoscope was the therapeutic potential of the large bore, hollow tube. The small biopsy channel found in fiberoptic endoscopes has necessitated the development of specialized therapeutic accessories which, until recently, have not been available.

From the Clinical Investigation Center, and the Gastrointestinal Branch of the Internal Medicine Service, Naval Regional Medical Center (NAVREGMEDCEN), San Diego, Calif.

The work described herein was supported by the Department of the Navy, Bureau of Medicine and Surgery, Clinical Investigation Control Center Work Unit 3-16-046.

Reprint requests and correspondence should be addressed to LCDR O.T. Nebel, MC, USNR; NAVREGMEDCEN San Diego, California 92134.

The opinions or assertions expressed in the above paper are those of the authors and are not to be construed as official, or necessarily reflecting the views of the Navy Department or the naval service at large.

Recent reports indicate that the fiberoptic endoscope can be an effective therapeutic instrument. The purpose of this report is to review this new application of fiberoptic gastrointestinal endoscopy.

MATERIALS AND METHODS

Fiberscopes for upper and lower gastrointestinal endoscopy are produced by several manufacturers. The features and diagnostic application of these instruments have been subjected to much discussion, and will not be reviewed here.

THERAPEUTIC PROCEDURES

Endoscopic Electrosurgery: The development of high frequency electrocautery snares, that may be used through the fiberscope biopsy channel, has made endoscopic surgery a reality. The electrosurgical removal of a variety of gastrointestinal lesions currently represents the most common type of therapeutic endoscopy.¹⁻⁴ The endoscopic electrosurgical snare consists of a catheter through which a proximally controlled wire loop is passed. A high frequency electrocautery apparatus is attached to the proximal end of the snare wire, and provides the necessary current for cautery and coagulation. The clinical application of this technique is demonstrated by the following case.

CASE REPORT

H.D. is a 70-year-old male who was referred to the gastrointestinal clinic for evaluation of intermittent hematochezia. Past history included a previous cerebrovascular accident and myocardial infarction, from which he had recovered with minimal functional impairment. Barium enema examination revealed a 2-cm polyp located in the proximal sigmoid colon. Colonoscopy was performed and the polyp, located at a distance of 50 cm from the anal verge, appeared eroded and friable. Microscopic study of tissue obtained by endoscopic biopsy of the polyp showed only cellular atypicity. Because of persistent hematochezia and uncertain polyp histology, polypectomy was advised. Endoscopic polypectomy was carried out without difficulty (Figure 1), and the patient was discharged from the hospital on the following morning. Follow-up examination conducted 6 months later revealed no further hematochezia, and repeat colonoscopy revealed normal appearance of colonic mucosa in the region of the polypectomy site.

This response is typical of our experience with this procedure, but endoscopic polypectomy is not without risk. Both perforation and bleeding have been reported, and preliminary data suggest that complications following electrosurgical polypectomy are more frequent than

had been anticipated.⁵ Familiarity with both endoscopic technique and electrosurgical instruments will minimize complications, and is an essential prerequisite before attempting these procedures. In addition to colonic polyps, endoscopic electrosurgery has been successfully used in the upper gastrointestinal tract to remove lesions from both the stomach and the duodenum.^{3,4} The technique for performing upper gastrointestinal electrosurgery is the same as for colon lesions. However, the increased gastric wall thickness and the absence of explosive gases provide an even greater margin of safety. Experience to date indicates that endoscopic electrosurgical polypectomy is the procedure of choice for removing polypoid lesions of the upper and lower gastrointestinal tract. Application of the technique for removing sessile lesions is being explored, but more work must be done in this field before the procedure can be recommended for general use.

Foreign Body Removal: The endoscopic removal of foreign bodies fell into disuse with the introduction of the fibroscope. The small biopsy channel, and absence of foreign body accessories, severely limited use of the fibroscope in foreign-body removal. The resurgence of interest in fibroscope foreign-body removal is due, in part, to the successful application of recently developed endoscopic accessories for foreign-body removal.

The use of the biopsy forceps and other snare devices for removal of a variety of foreign bodies has been reported,^{4,6-11} and is illustrated by the following case.

CASE REPORT

R.M. is a 73-year-old male who was admitted to the hospital with a 3-day history of nausea and vomiting. Past history included a cerebrovascular accident, and moderately severe senile dementia. During the 6 months prior to admission, urinary and fecal incontinence had necessitated the use of diapers. An abdominal X-ray study revealed 2 large intragastric safety pins, one of which was open (Figure 2). Gastroscopy localized the pins to the body of the stomach (Figure 3). By inserting the biopsy forceps through the end of the pin and then opening the forceps, the pin could be pulled back to the endoscope lens (Figure 4). With insufflation to distend the esophagus, and under constant visualization, the pin was removed by withdrawing the scope. Both pins were easily removed by this maneuver, and a third endoscopy revealed no evidence of esophageal or gastric trauma secondary to the pin extraction. The patient was discharged with the recommendation that only pinless diapers be employed in the future.

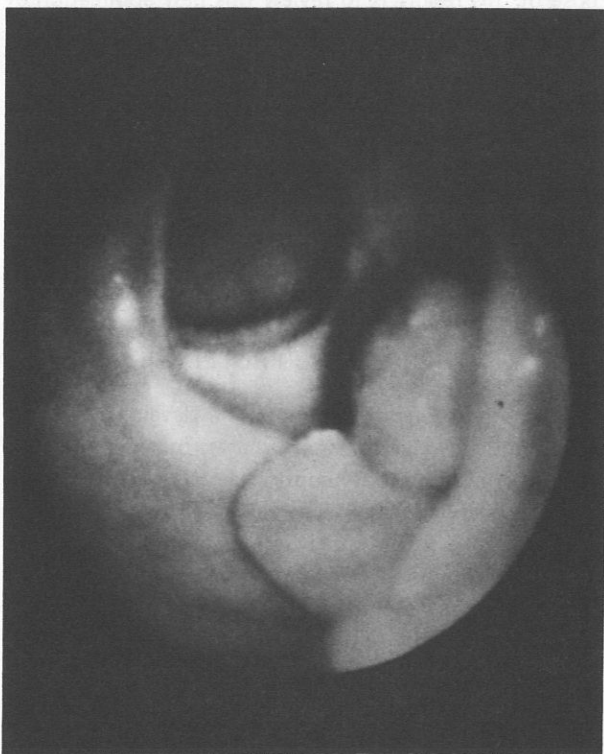


Figure 1.—Endoscopic photograph showing colonic polyp in the process of being "snared."

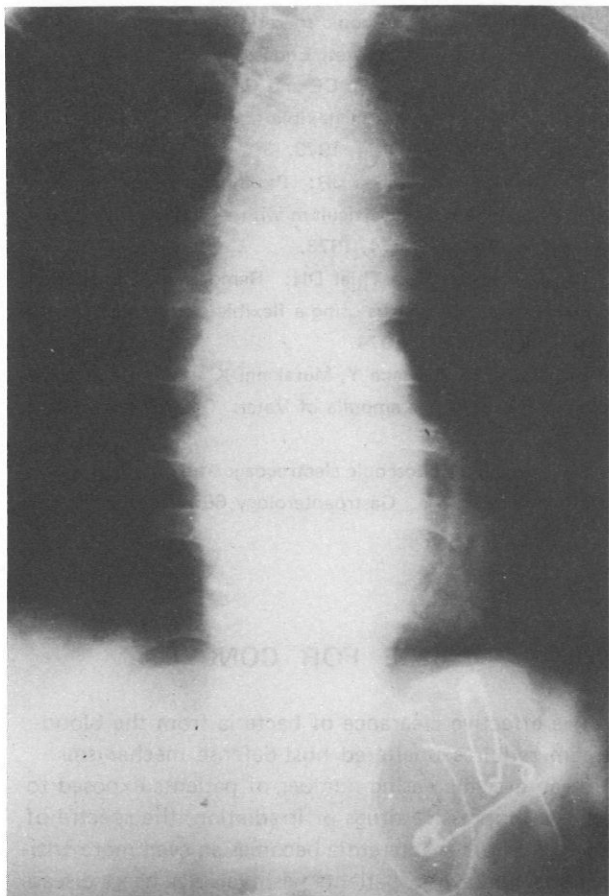


Figure 2.—Radiograph showing two pins in the stomach.

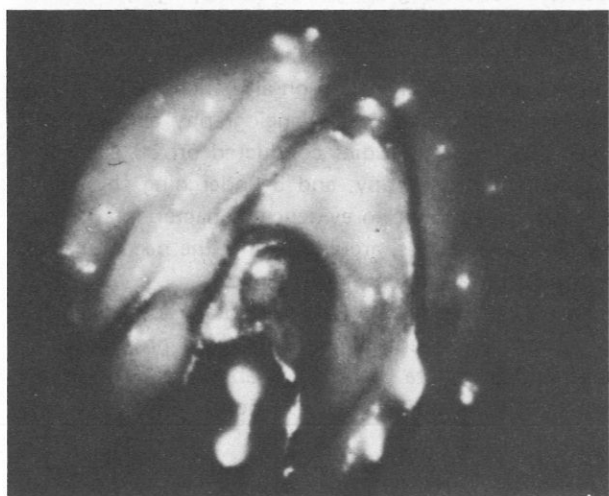


Figure 3.—Endoscopic photograph showing the safety pins prior to removal.

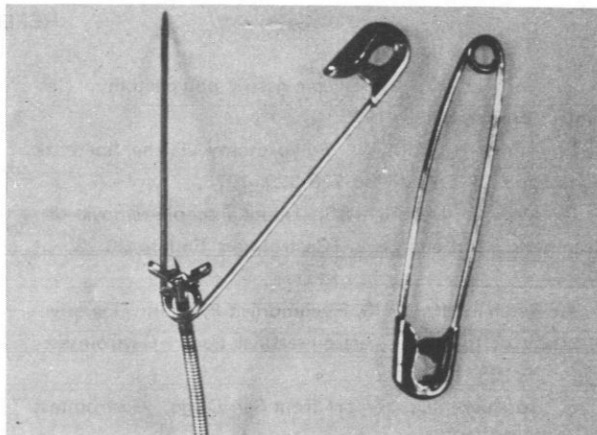


Figure 4.—Photograph showing endoscopic technique for removal of pins.

Endoscope manufacturers have been lax in the development of accessories for foreign-body removal, but the standard biopsy forceps and the loop snare used for electrocautery have proven useful in grasping a variety of objects. The newly developed "polyp grasper" may prove effective in this respect. It is hoped that more effort will be made by endoscope manufacturers in the field of foreign-body accessories.

Miscellaneous Therapeutic Procedures: A variety of miscellaneous therapeutic techniques utilizing the fiberoptic endoscope have been reported. A guide wire may be passed via the endoscope biopsy channel through esophageal strictures; occluded Sengstaken-Blakemore balloons can be ruptured with the biopsy forceps, and food bezoars may be mechanically disrupted with the biopsy forceps, snare devices, or water lavage. In addition, experimental techniques hold promise for still greater utility of fiberoptic endoscopy. An electrocautery probe has enabled endoscopic sphincterotomy of the papilla of Vater, with successful removal of impacted ampullary stones in 2 patients.¹² A recently developed, high-frequency, electrocautery coagulator has also been used successfully in a limited number of patients with refractory, upper-gastrointestinal bleeding.¹³

Recent reports document the fact that a variety of therapeutic procedures can be performed by using various fiberoptic endoscopes. The safety and clinical efficacy of these techniques depend primarily on the skill of the endoscopist, and only those endoscopists who are familiar with both endoscope and accessory equipment should engage in their clinical application. It would appear that the fiberoptic endoscope has finally earned itself a place in the clinician's therapeutic armamentarium.

REFERENCES

1. Norfleet RG: Endoscopic gastric polypectomy. *Gastrointest Endosc* 20:33, 1973.
2. Shinya H, Wolff W: Polypectomy via the fiberoptic colonoscope. *N Engl J Med* 228:329, 1973.
3. Alper EI, Haubrich WS: Duodenoscopic removal of a Brunner's gland adenoma. *Gastrointest Endosc* 20:73, 1973.
4. Resch W, Koch HS, Ruehmorgen P, et al: Operative endoscopy of the upper gastrointestinal tract. *Gastrointest Endosc* 20:108, 1974.
5. Roseman MD: Report from San Diego. *Gastrointest Endosc* 20:36, 1973.
6. DeGermone: Snare extraction of a gastric foreign body. *Gastrointest Endosc* 20:73, 1973.
7. McKechnie JC: Gastrosopic removal of a phytobezoar. *Gastroenterology* 62:1047, 1972.
8. Kline MM: Endoscopic snare in removal of an esophageal foreign body. *Gastrointest Endosc* 20:165, 1974.
9. Griswold FC, Haislip CE and Gardner RJ: Removal of intragastric foreign bodies in flexible fiberoptic esophagoscope. *Gastrointest Endosc* 19:194, 1973.
10. Munsell WP, Walker JR: Persimmon bezoar in an epiphrenic esophageal diverticulum with endoscopic removal. *Gastrointest Endosc* 20:74, 1973.
11. Stefan NJ, Von Thiel DH: Removal of soft foreign bodies from the esophagus using a flexible instrument. *Gastrointest Endosc* 20:163, 1974.
12. Kawai K, Akasaka Y, Murakami K, et al: Endoscopic sphincterotomy of the ampulla of Vater. *Gastrointest Endosc* 20:148, 1974.
13. Papp JP: Endoscopic electrocoagulation in upper gastrointestinal hemorrhage. *Gastroenterology* 66:A-166/820, 1974.

* * *

ENDOSCOPY-ASSOCIATED BACTEREMIA: A CAUSE FOR CONCERN?

Clinical microbiology has traditionally been devoted to the study of those bacteria associated with pathological states. Only recently has equal emphasis been placed on those microorganisms colonizing normal anatomical sites in asymptomatic subjects. While it has long been known that the oral cavity^{11,12} and distal bowel^{3,5,14} are populated by a complex microbial flora, little information on microbial ecology of the small intestine has been available. Investigators now agree that the small intestine in normal subjects harbors minimal numbers of transient microorganisms originating in the oral cavity.² This realization, that the alimentary tract of normal subjects is indeed populated throughout its entire length, is of practical as well as purely ecological importance. The practicing gastroenterologist cannot tacitly assume that the alimentary tract is a "sterile field" in which to ply his trade.

Classically bacteremias have been documented following oral manipulation,⁴ periodontal procedures,⁹ rectal surgery,¹ and urinary-tract instrumentation.^{7,13} This sequella has recently been noted following sigmoidoscopy,⁸ biopsy of rectal polyps,⁶ and small-bowel biopsies.¹⁰ If the foregoing procedures are associated with bacteremia, it seems quite likely that the newer endoscopic modalities, such as colonoscopy and retrograde cholangiography, likewise could be sources of transient iatrogenic bacteremia. This raises the issue of whether the endoscopist should prescribe prophylactic antibiotic coverage on a routine basis.

The effective clearance of bacteria from the bloodstream requires unaltered host-defense mechanisms. With an ever-increasing number of patients exposed to immunosuppressive drugs or irradiation, the spectre of post-procedural bacteremia becomes an even more critical issue. Likewise, patients with valvular heart disease may be prime targets for life-threatening bacteremias. Statistics on the incidence of transient bacteremia, following these newer procedures, are needed before any decisions concerning the use of chemoprophylaxis can be made.

In an attempt to resolve these issues, serial blood cultures are routinely taken on all patients undergoing elective colonoscopy or cholangiography at this hospital. Preliminary studies conducted on 30 patients undergoing colonoscopy, and 5 undergoing cholangiography have shown no evidence of bacteremia following these procedures, arguing against the need for prophylactic antibiotic coverage.

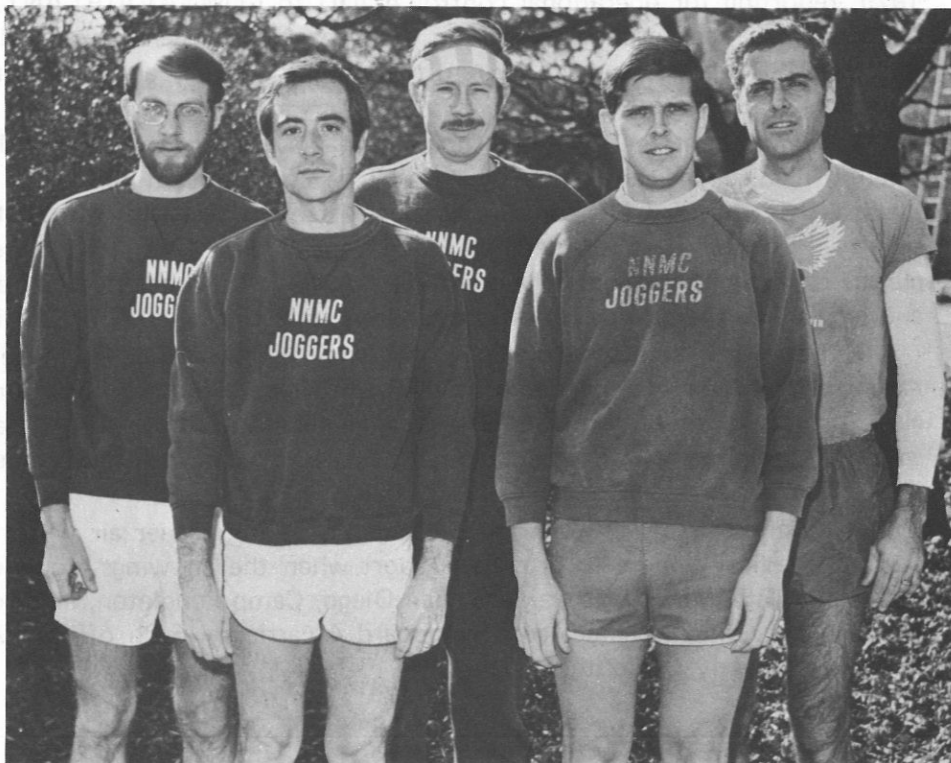
We will continue to study and obtain additional information on patients undergoing these procedures, until sufficient data become available to satisfactorily answer this pressing clinical question.

Michael D. Dickman, Ph.D. and
CAPT A.R. Chappelka, MC, USN
Clinical Investigation Service
Naval Regional Medical Center
Philadelphia, Pa.

REFERENCES

1. Burton RC: Gram-negative bacteremia in colonic and rectal surgery. *Med J Aust* 1:367, 1972.
2. Dickman MD: The gut microflora in health and disease. Ph.D. dissertation, The Graduate School, The Thomas Jefferson University, Philadelphia, Pa., 1973.
3. Eggerth AH, Gagnon BH: The bacteroides of human feces. *J Bacteriol* 25:389, 1933.
4. Felix JE, Rosen S and App GR: Detection of bacteremia after use of an oral irrigation device in subjects with periodontitis. *J Periodontol* 42:785, 1971.
5. Gorbach SL, Nahas L, Lerner PI and Weinstein LI: Effects of diet, age, and periodic sampling on numbers of fecal microflora in man. *Gastroenterology* 53:945, 1957.
6. Lal D, Levitan R: Bacteremia following proctoscopic biopsy of a rectal polyp. *Arch Intern Med* 130:127, 1972.
7. Last PM, Harbison P and Marsh JA: Bacteremia after urological instrumentation. *Lancet* 1:74, 1966.
8. Le Frock JL, Ellis C, Turchik J and Weinstein L: Transient bacteremia associated with sigmoidoscopy. *N Engl J Med* 289:467, 1973.
9. Lineberger LT, Demarco TJ: Evaluation of transient bacteremia following routine periodontal procedures. *J Periodontol* 44:757, 1973.
10. Pety AM, Wenger T: Bacteremia following per-oral biopsy of the small intestine. *Gastroenterology* 59:140, 1970.
11. Richardson RL, Jones M: A bacteriologic census of human saliva. *J Dent Res* 37:697, 1958.
12. Rosebury T: *Microorganisms Indigenous To Man*. New York, McGraw-Hill Book Co Inc, 1962.
13. Sullivan NM, Sutter VL, Carter WT and Atteberry HR: Genitourinary tract manipulation: Bacteriological aspects and evaluation of various blood culture systems. *Appl Microbiol* 23:1101, 1972.
14. Zubrzycki L, Spaulding EH: Studies on the stability of the normal human fecal flora. *J Bacteriol* 83:968, 1962.

5 JOGGERS = 13,178 MILES



These 5 members of the National Naval Medical Center (NNMC) Joggers Club have run up a total of 13,178 miles in their off-duty hours since the club opened in Jan 1973. The joggers, with their total mileage, are (from left): HM2 Randall Koppenhaver, USN, Naval Toxicology Unit (NTU), 3,461 miles; CDR Joseph Cassells, MC, USN, Health Sciences Education and Training Command (HSETC), 2,127 miles; LT Nathan Sessions, MSC, USN, HSETC, 856 miles; LT Melvin Andersen, MSC, USN, NTU, 2,156 miles; and LCDR William Hoss, Jr., MSC, USN, NNMC, 4,577 miles.—PAO, NNMC, Bethesda, Md. (Photo by HM1 Garry Silk.)

BUMED REORGANIZED

The newly revised BUMED Organization Manual (BUMEDINST 5430.4A of 8 Nov 1974) contains official organization charts and functional statements reflecting recent BUMED reorganization. A list of new BUMED codes, effective 1 Mar 1974, is provided. Details upcoming in U.S. NAVY MEDICINE.

ACCELERATED MILITARY MEDICAL CONSTRUCTION

During the past 11 months, 6 major military medical construction projects, initiated prior to FY74, have been completed: 2 hospitals, 3 clinics, and a BEQ. Another 2 hospitals and 3 clinics are now under construction.

The FY74 military medical construction program was valued at \$50,647,000 and included 23 projects; FY75: \$76,171,000 and 25 projects; FY76: \$133,196,000 and 5 projects; FY77: \$140,597,000 and 13 projects. Major projects for FY78 through FY81 have been tentatively identified, with emphasis on satisfying major deficiencies in hospitals and replacing outmoded clinic facilities.

AEROSPACE MEDICINE PROGRAMS

Giant steps forward in aerospace medicine include:

- Aerospace Medical Safety Operations (AMSO) offices soon to be established in environmental and preventive medicine units (EPMUs) at Norfolk, Va., and San Diego, Calif. One flight surgeon will be assigned to each unit during 1975, reporting for operational control ADDU to COMNAVAIRLANT/PAC. In addition, 3 aerospace physiologists on each coast have been designated for duty in the AMSO offices, and are currently completing safety and accident investigation school at Monterey, Calif.

- To augment the dwindling number of Navy flight surgeons, a 1-month aviation medical officer (AMO) course will be conducted at the Naval Aerospace Medical Institute for GMOs or clinical specialists who deal with the aviation community. The 1st class is scheduled to convene 5 May 1975, with subsequent classes beginning approximately quarterly. AMOs will conduct flight physicals, and sign ungrounding notices on aircrewmembers following uncomplicated illness.

- Four to 6 aerospace medicine residency billets will be filled next year. A new program has also been approved which allows 1 student flight surgeon per class to proceed directly into the aerospace medicine residency at the Naval Aerospace Medical Institute, Pensacola, Fla., instead of being assigned immediately to operational duty.

- A shortfall of 12 junior flight surgeons in the carrier air wings requires selected medical centers to provide support when the air wings embark. Currently NAVREGMEDCENS Oakland, San Diego, Camp Pendleton, and Portsmouth are each providing 1 medical officer aboard 4 carriers. Each officer will serve for approximately 3 months.

TOTAL COMMISSIONED SERVICE

The present law for computing total commissioned service for certain Dental Corps officers has resulted in the stacking of senior officers at the top, restricting the accession of junior career officers. Legislative relief may be necessary to solve this problem by amending the law, as done in 1968 for the Supply Corps and Civil Engineer Corps.

MENINGOCOCCAL DISEASE REPORT

For the 2nd consecutive year, no deaths were reported among active-duty Navy and Marine Corps personnel due to meningococcal disease. Eleven cases of meningococcal disease were confirmed during 1974, down from 19 cases in 1973.

Reduced incidence of disease is believed to be due in part to routine use of serogroup C polysaccharide meningococcal vaccine in Navy/Marine Corps recruit populations. Serogroup A disease was not identified during 1974 in active-duty or dependent personnel in CONUS.

When meningococcal disease is suspected or confirmed, BUMEDINST 6220.3A requires that a disease-alert report be sent to Chief, BUMED. If possible, meningococcal organisms isolated from active-duty and dependent personnel should be serogrouped, and the information included in a follow-up report. In most cases, grouping can be done by local naval hospital or state laboratories. If further assistance is required, contact the appropriate Navy Environmental Preventive Medicine Unit, or the Center for Disease Control. A sample of meningococcal isolates should be forwarded to: Neisseria Repository, Naval Biomedical Research Laboratory, Naval Supply Center, Oakland, Calif. 94625.

OCCUPATIONAL HEALTH COMMITTEE FORMED

Members of the newly formed Occupational Health Planning and Program Evaluation Committee in BUMED Code 56 are: Mr. J.E. Shultz (chairman); LCDR L.E. Doptis, MSC, USN; and LT R.H. Hazleton, MSC, USN. RADM T.J. Christman, USN (Ret.) is management information systems consultant, with other consultants and associate committee members to be named as required.

Field activities are encouraged to offer constructive criticism of, and recommended improvements in regional occupational health programs. Call committee members at: (Area code 202) 294-4620; Autovon 227-3639.

FLIGHT SURGEONS' NEWS DISCONTINUED

Due to funding constraints, publication of the FLIGHT SURGEONS' NEWS has been discontinued. The last issue was published in Oct 1974. Articles and news items of interest to naval flight surgeons should continue to be submitted to BUMED Code 51 for review and possible publication in U.S. NAVY MEDICINE.

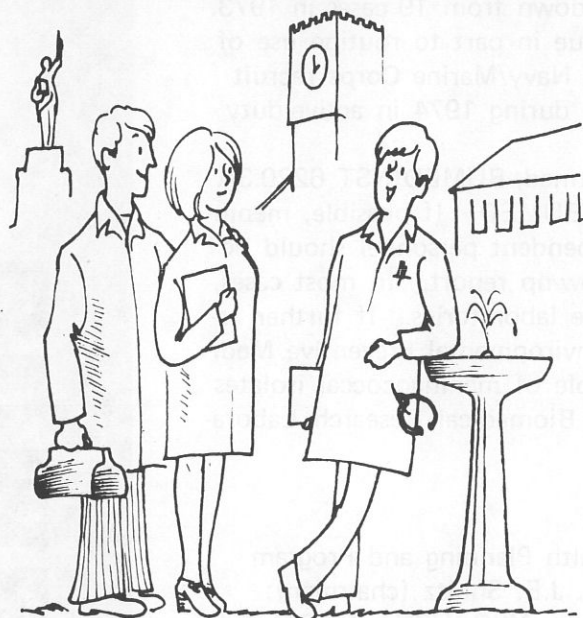
CANCER PROGRAM MANUAL

Physicians in charge of teaching programs in Navy medical facilities may wish to obtain the revised Cancer Program Manual, 1974, now available without charge from: Cancer Program Activities, American College of Surgeons, 55 E. Erie St., Chicago, Ill. 60611. The manual contains criteria for establishing an organized hospital cancer program.

NATIONAL VOLUNTEER WEEK: 20-26 APR 1975

Medical Department personnel are invited to join in the nationwide celebration of National Volunteer Week, 20-26 Apr 1975, by saluting the unselfish and dedicated service provided in Navy medical facilities by volunteers. Although the value of volunteer contributions should be recognized daily, National Volunteer Week offers a special opportunity to applaud the significant achievements of these invaluable assistants, and to draw attention to the rewards that can be derived from volunteer service. ☸

SCHOLARS' SCUTTLEBUTT



Application time is again upon us. You, our scholarship students, are beginning to make the decisions that will do much to determine your professional future. Of necessity, the Navy must figure prominently in your plans.

Medical Department program managers have had the opportunity to talk with many of you, and to discuss with you personally, many of your concerns, reservations, and questions about future professional training. In an effort to help clarify some of these areas, we offer here a decision/action flow chart (Figure 1) for use by 1976 graduates.

Also reproduced below is the BUMED memorandum that describes Navy policy for applying for 1st-year graduate medical education (GME). A copy of this memorandum will be sent to all subsidy students.

Finally, in Table 1, the list of subsidy students located at various schools is continued. Publication of this list commenced with the Nov 1974 issue of *U.S. Navy Medicine*.

MEMORANDUM FOR ALL STUDENTS IN AFHPS PROGRAM (MEDICAL AND OSTEOPATHIC)

Subj: Graduate Medical Education

1. As you may be aware, the Navy has discontinued seeking 1st-year trainees under the National Intern and Resident Matching Program of the American Medical

Association (AMA) for training to commence in Jul 1975 and thereafter. It is deemed appropriate that you, as a participant in the Armed Forces Health Professions Scholarship (AFHPS) Program, should know of this. Other medical and osteopathic students who are drawing Navy pay are provided copies of this memorandum for information purposes.

2. In accordance with the provisions of the AFHPS Program, *you are required* to apply for your 1st year of graduate medical education in the Navy. The following schedule of dates will apply:

1 May 1975 — Scholarship students who are entering (or about to enter) their senior year will be provided with a complete listing of 1st-year positions that will be available in Jul 1976. Application forms, with necessary instructions, will also be supplied.

1 Sep 1975 — Closing date for receipt of applications in the Bureau of Medicine and Surgery (BUMED).

Sep 1975 (exact date to be announced) — Selection committee meets in Washington, D.C., to select 1st-year trainees for all hospitals.

Oct 1975 (exact date to be announced) — All candidates advised of their selection or nonselection.

3. The following general information is provided:

a. **Programs:** It is planned that there will be about 230 1st-year positions offered to graduating students, in about 75 separate programs, in 9 naval hospitals. Programs will be listed as categorical, categorical diversified, and flexible:

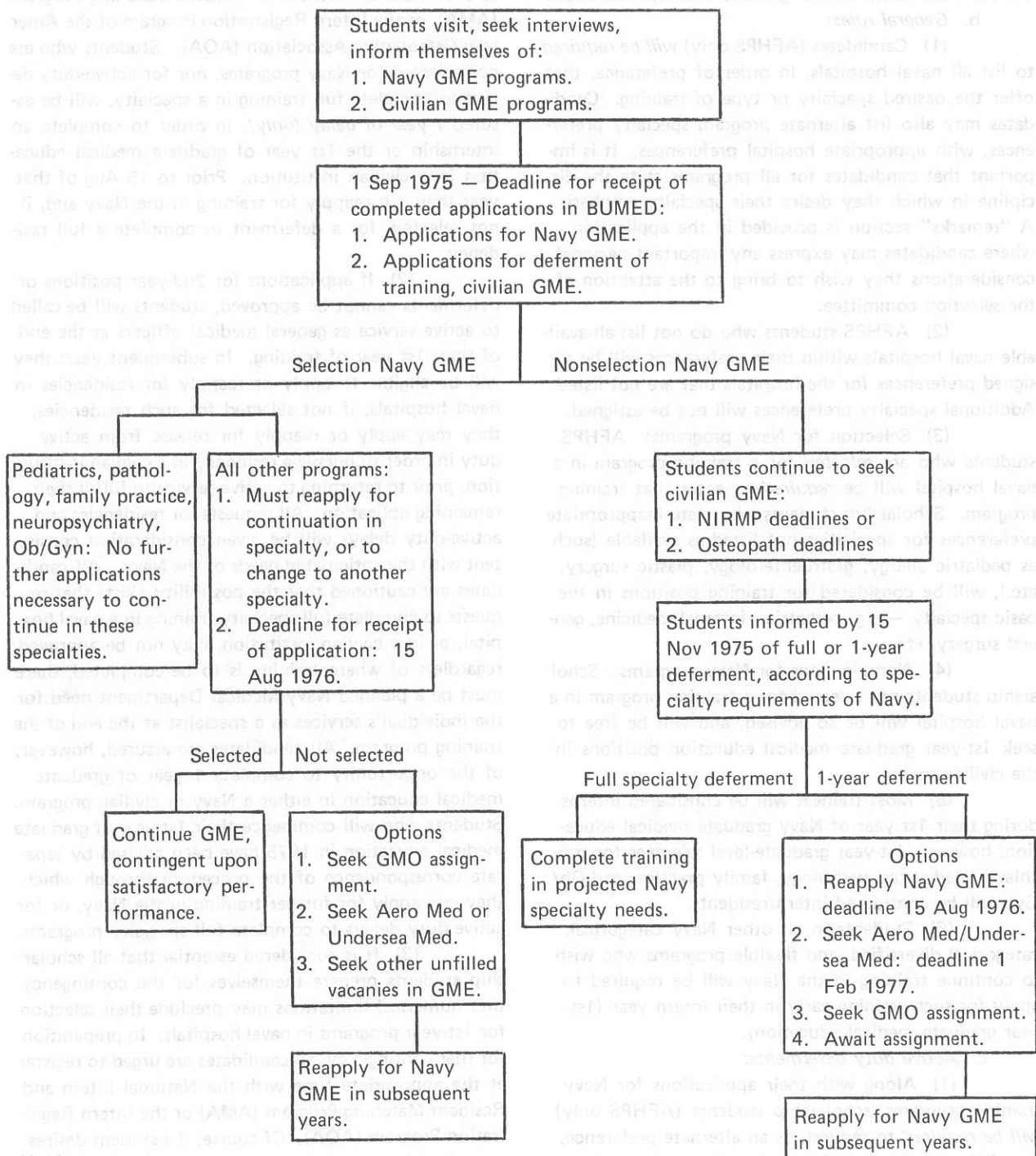
Categorical programs will consist of 12 months of training in a single discipline.

Categorical diversified programs will consist of at least 6 months in a single discipline, with some latitude in other disciplines.

Flexible programs will consist of at least 4 months in medicine, plus other rotations. Rotations will be offered in all specialties in which the hospitals concerned have an approved residency. Other rotations will ordinarily last at least 2 months.

The only specialties in which an uninterrupted continuum of graduate medical education will be offered competitively to graduating students are: psychiatry, pediatrics, pathology, family practice, and obstetrics and gynecology. Students accepted into the 1st year in these 5 programs do not apply for continued training;

FIGURE 1.—DECISION/ACTION FLOW CHART FOR AFHPS STUDENTS GRADUATING IN 1976



KEY:

AFHPS = Armed Forces Health Professions Scholarship

GME = graduate medical education

NIRMP = National Intern and Resident Matching Program

GMO = general medical officer

students accepted into all other 1st-year programs must compete and reapply for advancement into the 2nd year, and the continuum of graduate medical education.

b. General rules:

(1) Candidates (AFHPS only) *will be required* to list all naval hospitals, in order of preference, that offer the desired specialty or type of training. Candidates may also list alternate program specialty preferences, with appropriate hospital preferences. It is important that candidates for all programs state the discipline in which they desire their specialty emphasis. A "remarks" section is provided in the application, where candidates may express any important personal considerations they wish to bring to the attention of the selection committee.

(2) AFHPS students who do not list all available naval hospitals within their preferences will be assigned preferences for the hospitals that are not listed. Additional specialty preferences will not be assigned.

(3) Selection for Navy programs: AFHPS students who are *selected* for a training program in a naval hospital will be *required* to enter that training program. Scholarship students who state inappropriate preferences for specialties not listed as available (such as pediatric allergy, gastroenterology, plastic surgery, etc.), will be considered for training positions in the basic specialty — e.g. pediatrics, internal medicine, general surgery, etc.

(4) Nonselections for Navy programs: Scholarship students not selected for a training program in a naval hospital will be so advised, and will be free to seek 1st-year graduate medical education positions in the civilian sector.

(5) Most trainees will be considered interns during their 1st year of Navy graduate medical education; however, 1st-year graduate-level selectees for psychiatry, pediatrics, pathology, family practice, and Ob/Gyn will be considered intern/residents.

(6) Students in all other Navy categorical, categorical diversified, and flexible programs who wish to continue training in the Navy will be required to apply for such training early in their intern year (1st-year graduate medical education).

c. Active duty deferments:

(1) Along with their applications for Navy training programs, scholarship students (AFHPS only) *will be required* to request, as an alternate preference, *permission* to delay serving their active-service obligation in order to train (internship or residency) in a civilian institution. The institution need not be listed, but the specialty and the length of the delay desired must be clearly stated. Students *who are not selected* for Navy programs will be so advised to allow them to

submit their rank-order lists of preferred civilian institutions within the time limits established for application to the National Intern and Resident Matching Program (AMA), or the Intern Registration Program of the American Osteopathic Association (AOA). Students who are *not selected* for Navy programs, nor for active-duty delays to complete full training in a specialty, will be assured *1 year of delay (only)*, in order to complete an internship or the 1st year of graduate medical education in a civilian institution. Prior to 15 Aug of that year they can reapply for training in the Navy and, if not selected, for a deferment to complete a full residency.

(2) If applications for 2nd-year positions or deferments cannot be approved, students will be called to active service as general medical officers at the end of their 1st year of training. In subsequent years they will be eligible to apply or reapply for residencies in naval hospitals; if not selected for such residencies, they may apply or reapply for release from active duty in order to pursue a residency in a civilian institution, prior to returning to active service to fulfill their remaining obligation. All requests for residencies and active-duty delays will be given consideration consistent with the anticipated needs of the Navy. All candidates are cautioned that the possibility exists that requests to complete full specialty training in a naval hospital, or in a civilian institution, may not be approved; regardless of where training is to be completed, there must be a planned Navy Medical Department need for the individual's services as a specialist at the end of the training program. All candidates are assured, however, of the opportunity to complete 1 year of graduate medical education in either a Navy or civilian program. Students who will commence their 1st year of graduate medical education in 1975 have been advised by separate correspondence of the procedure through which they can apply for further training in the Navy, or for active-duty delays to complete full specialty programs.

(3) It is considered essential that all scholarship students prepare themselves for the contingency that numerical limitations may preclude their selection for 1st-year programs in naval hospitals. In preparation for that contingency, all candidates are urged to register at the appropriate time with the National Intern and Resident Matching Program (AMA) or the Intern Registration Program (AOA). Of course, if a student desires to seek training on his own (*if not selected Navy*), he or she is free to do so. Those students who are selected for Navy programs, and who may have registered with 1 of the intern placement plans, will withdraw from that plan upon notification of selection by the Navy. As in the past, the Navy will continue to offer

unfilled 1st-year positions to qualified students who do not obtain positions under the AMA or AOA placement plans. Information concerning such vacancies will be available each year, after the AMA and AOA placement announcements.

(4) It can be anticipated that in the competition for 1st-year graduate medical education positions available in naval hospitals beginning in Jul 1976, there will be at least twice as many applicants as available positions. In specialties that enjoy national popularity, such as medicine, surgery, orthopedics, Ob/Gyn, ophthalmology, etc., the competition will no doubt be greater. But because of the Navy's future needs in anesthesiology, family practice, psychiatry, radiology, pathology, and pediatrics, it is planned that a maximum number of positions in naval hospitals, and deferments to complete training in civilian institutions, will be offered in these specialties.

(5) If at all possible, students are urged to visit naval hospitals, in which they are interested, for interviews. In an ongoing program the results of those interviews are forwarded to Washington, where they are made a part of the student's application file. Interviews must be completed prior to 15 Aug 1975; results of interviews must be received in BUMED prior to 25

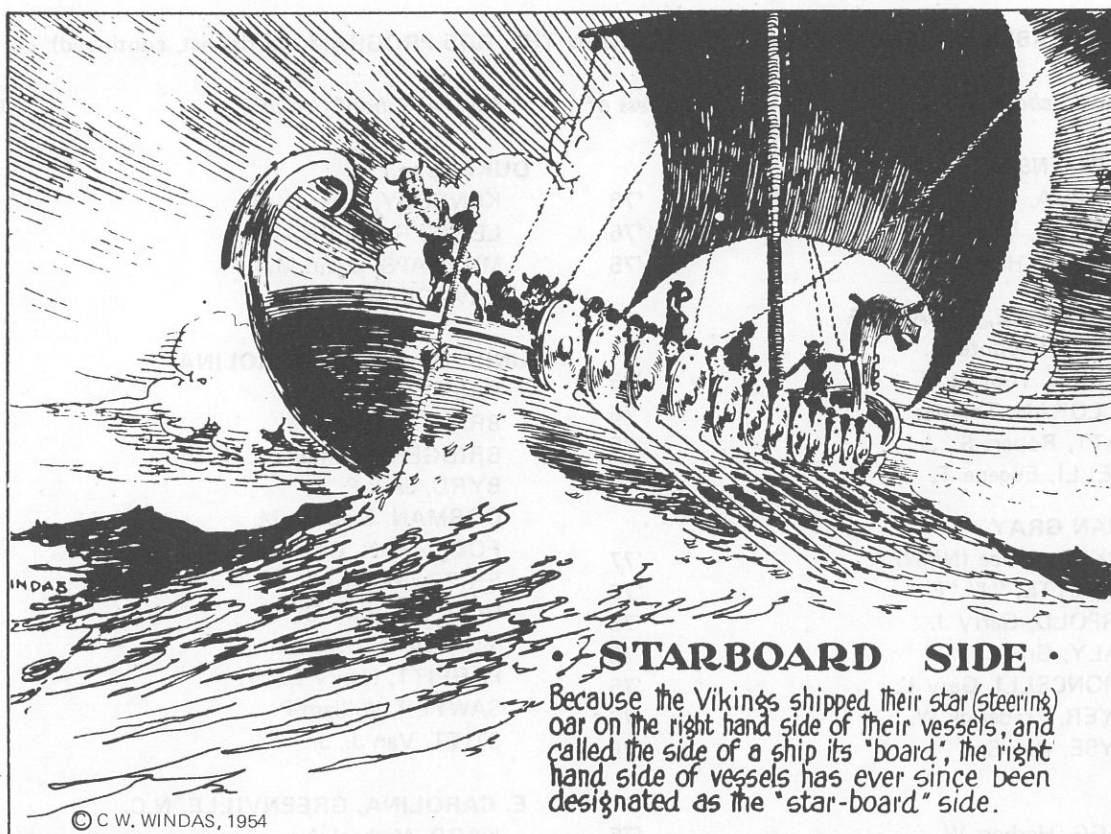
Aug 1975. Prospective candidates for a given program are urged not to consider a program director's indication of acceptance as the final placement determination. It is not uncommon for 2 or more program directors to state a preference for the same candidate. In such cases, a decision must be made through the internal Navy matching operation. The results of this matching may require that a candidate be placed in a hospital or a program that is lower on his preference list than he had anticipated.

4. The provisions of this memorandum that pertain to active-duty delays, and the requirement to state multiple hospital preferences do not apply to students who are serving on active duty in the Medical and Osteopathic Scholarship Program (MOSP), nor in the Senior Medical Student Program (SMSP). Such students may continue to apply to as many Navy and civilian programs as they may desire. However, the opportunity for these students to participate in civilian training programs is limited to the 1st year of graduate medical education only. Application procedures for training in naval hospitals are as stated in this memorandum, and the schedule of dates pertains. Therefore, a copy of this memorandum is being supplied to all MOSP and SMSP students, for information only.

TABLE 1.—STUDENTS PARTICIPATING IN THE 1975 PROGRAM (partial list, continued)

<i>Medical School Group</i>	<i>Class of</i>	<i>Medical School Group</i>	<i>Class of</i>
SUNY DOWNSTATE, BROOKLYN		DUKE (Con.)	
DI CAPUA, Lawrence	'76	KENNEDY, John D., Jr.	'77
MC NIECE, Donald M.	'76	LEWIS, Richard H.	'77
MINERVE, Harold A.	'75	MILLSAPS, David M.	'77
		SAVAGE, Robert M.	'76
SUNY UPSTATE, SYRACUSE		UNIV. OF NORTH CAROLINA	
CLOSE, Theodore D.	'77	BASS, Robert	'76
COLLINS, Thomas M.	'75	BRAY, Patrick G.	'75
HALLORAN, Thomas J.	'76	BRIDGERS, Samuel L. II	'75
PYATT, Robert S., Jr.	'75	BYRD, Jack P.	'76
TINELLI, Eugene T.	'76	DORMAN, Stephen M.	'75
BOWMAN GRAY		FOGLEMAN, Clarence E.	'75
BECKER, Bruce (NMN)	'77	FRITZ, Richard T.	'76
BURNETTE, "J" "P"	'75	HUNTER, Billy G., Sr.	'75
HARPOLD, Garry J.	'76	MC CLAIN, Gary M.	'75
HEALY, Grant	'76	PARFITT, Henry E., Jr.	'75
LEMONCELLI, Gary L.	'75	SAWYER, William P.	'75
MAYER, Frederick W.	'76	STITT, Van J., Jr.	'75
MAYSE, Ray S.	'76		
DUKE		E. CAROLINA, GREENVILLE, N.C.	
CLEGG, Herbert W.	'75	KARR, Michael A.	'77

Medical School Group	Class of	Medical School Group	Class of
UNIV. OF NORTH DAKOTA		OHIO STATE (Con.)	
KURTTI, Robert D.	'76	BEAN, Frederic L.	'75
RASH, Francis C.	'76	BELL, Jeffery G.	'75
RUGGLES, Kevin H.	'75	BRAWLEY, Robert L.	'76
		BURDGE, Jeremy J.	'75
CASE WESTERN RESERVE		DIXON, Bonnie L. M.	'75
CHERKALA, Bruce L.	'76	DIXON, Donald L.	'75
CLAGUE, Michael D.	'77	HUFFER, Gwenn E.	'75
		JUMP, John C.	'75
CINCINNATI		LEA, Gary H.	'75
ATKISSON, James D.	'75	LIVINGSTON, John M.	'76
FERGUSON, Wilson J., Jr.	'76	LONG, Kenneth W.	'75
LABARRE, Robert R.	'76	MACKAN, Michael D.	'75
RUFLETH, Peter W.	'76	MITCHELL, Allen M.	'75
		RANDOLPH, David C.	'75
MEDICAL COLLEGE OF OHIO, TOLEDO		REICHLEY, Stephen C.	'75
ARMSTRONG, Richard A.	'76	RUFNER, Deborah K.	'75
LUDEN, Gary A.	'77	SCHULER, Michael A.	'75
QUINN, James, E.	'76	SEIBERT, John D.	'75
		STROMINGER, Richard D.	'77
OHIO STATE		TIMPONE, Michael J.	'76
ALTER, Sherman J.	'76	VAN GILSE, William V.	'76



AMERICAN BOARD CERTIFICATIONS

American Board of Allergy and Immunology

CDR Walter L. McLean, MC, USN

American Board of Anesthesiology

LCDR Edward F. Anderson, MC, USN
 LCDR John F. Donaldson, MC, USN
 LCDR Richard L. Fraioli, MC, USN
 LCDR William M. Henderson, MC, USNR
 LCDR Michael S. Jakubowski, MC, USNR
 LCDR James P. Jordan, Jr., MC, USN
 LCDR James M. Klick, MC, USN
 LCDR Frederic L. Paulsen, MC, USNR
 LT John F. Jones, MC, USN

American Board of Clinical Psychology

CDR Gale W. Bach, MSC, USNR

American Board of Dermatology

CAPT Bennett L. Johnson, Jr., MC, USN
 CDR Walter T. Johnson, MC, USN
 CDR Marvous Saunders, MC, USN
 LCDR Frederic C. Fenig, MC, USNR
 LCDR Fred J. McElveen, MC, USNR

American Board of Internal Medicine

CDR Donald J. Kearney, MC, USN
 CDR Walter V.R. Vieweg, MC, USN
 LCDR Daniel T. Danahy, MC, USNR
 LCDR Neil J. Hart, MC, USNR
 LCDR David W. Ortvals, MC, USNR
 LCDR Robert W. Rosenbaum, MC, USNR
 LCDR Robert A. Waugh, MC, USNR
 LCDR Michael W. Yocum, MC, USNR

American Board of Internal Medicine (Con.)

LT Timothy B. Denzler, MC, USNR
 LT George R. Freeland, MC, USNR
 LT Stephen S. Frost, MC, USNR

American Board of Nuclear Medicine

LCDR Kenneth A. Scheidt, MC, USN

American Board of Obstetrics and Gynecology

CDR Cyril Newman, MC, USN
 LCDR Robert L. Schweitzer, MC, USNR

American Board of Orthopedic Surgery

LCDR Robert E. Chambers, MC, USN
 LCDR Russell R. Zelko, MC, USNR

American Board of Otolaryngology

LCDR Thomas E. Acomb, MC, USNR
 LCDR William A. Combs, MC, USN
 LCDR James M. Motes, Jr., MC, USN
 LCDR Michael J. Rensink, MC, USN


American Board of Pediatrics

LCDR Richard A. Cahill, MC, USNR
 LCDR David I. Goldsmith, MC, USNR

American Board of Preventive Medicine

CAPT Dennis F. Hoeffler, MC, USN
 CAPT Walter F. Miner, MC, USN
 LCDR Lee J. Melton III, MC, USN

American Board of Surgery

LCDR Gary L. Broadrick, MC, USN
 LCDR Joseph L. Romolo, MC, USNR 

AWARDS AND HONORS

Legion of Merit

CAPT Robert M. Ware, MSC, USN

Meritorious Service Medal

CAPT Scott G. Kramer, MC, USN
 CAPT Walter F. Miner, MC, USN


Navy Commendation Medal

CAPT Gerald M. Bowers, DC, USN (now retired)
 CAPT Jan G. de Waal, MC, USN
 CAPT William B. Shreve, Jr., DC, USN

Navy Commendation Medal (Con.)

LCDR Francis J. Robertello, DC, USN
 HMCS Donald C. Potts, USN
 HM1 Carl J. Dufrene, USN
 HM3 Willie Mosley, USN

Navy Achievement Medal

LCDR Hamilton Lokey, MC, USN
 LCDR Carl A. Wesolowski, MSC, USN
 LT James A. Brady, MSC, USN
 DTC Robert J. Dougherty, Jr., USN 



POSTOPERATIVE MANAGEMENT IN SCOLIOSIS

To the Editor: This letter is prompted by the article "Scoliosis: Diagnosis and Management in the Military Population," by CDR Alvin H. Crawford, MC, USN. (See U.S. Nav Med 64[4]:13-16, Oct 1974.) The established medical record-keeping system described in the paper is admittedly excellent as to content, function, and retrieval.

My concern after reading the article on several occasions is with the discussion of patient care and treatment. Appearing on page 16 under "Clinical Procedures," the last sentence refers to postoperative care and is the basis of my concern: "Postoperative patients remain recumbent for a period of 6 months."

I am most cognizant that surgery is only a small part of the available therapeutic armamentarium for treating scoliosis, and that it is indicated only in selected patients. Further, in those patients subjected to surgical intervention, postoperative management is at least as important as any aspect of the surgical procedure itself.

While postoperative recumbency for a period of 6 months was once regarded as routine postoperative management for scoliosis surgery, the consensus derived from my own training, experience, and reading now dictates that patients may routinely be gotten up as early as 10 to 14 days following surgery with Harrington instrumentation, and may remain ambulatory for the remainder of the postoperative treatment.

Early ambulation implies meticulous attention to postoperative casting detail, activity supervision, and roentgenographic analysis. It virtually obviates the physiologic, psychological, sociologic, and economic disadvantages of an enforced 6-month recumbency. Except in select cases, well documented series of patients demonstrate no disadvantage to early ambulation so long as meticulous attention to detail is observed.

BIBLIOGRAPHY

1. Hardy JH, Takahashi RM and Peterson CA: Results of early ambulation following scoliosis spine fusion and Harrington rodding. J Bone Joint Surg 55(a):437, Mar 1973.
2. Harrington PR, Dixon JH: An eleven year clinical investigation of Harrington instrumentation. Clin Orthop 93:113-130, Jun 1973.
3. Leider LL Jr, Moe JH and Winter RB: Early ambulation after surgical treatment of scoliosis. J Bone Joint Surg 55(a): 1003-1015, Jul 1973.

LCDR Peter R. Dornenburg, MC, USNR
Department of Orthopedics
Naval Hospital
Corpus Christi, Tex. 78419

SCIENTIFIC METHOD

To the Editor: The article entitled "Drug Abusers: Some Preliminary Findings," by LTs D.F. Reinhart and W.P. Shepherd, and HM2 Curtis (See U.S. Nav Med 64 [1]:18-20, Jul 1974), presents some potentially useful information for active and reserve naval officers on a social/medical problem of extreme importance.

The value of the data presented, however, is limited by a failure to compare the reported group of subjects with a comparable control group. Editorial review of such articles should suggest to authors that age, rate, education level, etc., of a diseased population have little meaning when viewed in isolation, and must be interpreted in relation to the general military population.

For example, 40% of the total population of drug abusers were in pay grade E-2; what is the relative incidence of abusers in the entire group of E-2s? Is the fact that the highest proportion of abusers were E-2s significant in itself, or does it merely reflect that there

are more E-2s in the military population at NDRC-NAS Jacksonville?

Thank you very much for the opportunity to express this view. I hope the authors will be encouraged to publish further findings in the near future.

CAPT Lucas S. Van Orden III, MC, USNR-R
College of Medicine
Department of Pharmacology
The University of Iowa
Iowa City, Iowa 52242

STUDENT "COMPANY"

To the Editor: As the elected commanding officer of an unofficial medical company that we have formed at the Kirksville College of Osteopathic Medicine, I should like to report that we have formed a group of 21 scholarship students, organized in the spring of 1974. We formed the unofficial company in order to obtain and distribute information about the scholarship program, naval hospitals, and Navy medicine.

We have had several meetings, and naval officers addressed the group at 2 of these meetings. Information has been obtained on Navy indoctrination, and specific programs and community features at the different teaching hospitals. We have also written a letter offering a discussion of difficulties confronting us in the scholarship program (HR2), and suggested solutions.

This organization has not solved all of our problems, but it has been quite effective in obtaining and distributing information. We would welcome suggestions for ways to improve this effort, and would be willing to assist any other group that may wish to institute a similar organization.

ENS Charles Kaluza, USNR
14 Shockey's Mobile Court
Kirksville, Mo. 63501

NAVY INTERN-RESIDENT MATCHING PROGRAM

To the Editor: Under the National Intern-Resident Matching Program (NIRMP), a graduating student was assured that he would begin training at the hospital placed highest (on his matching list) that had similarly ranked him high. Now that the Navy has dropped out of the NIRMP, it would appear that applicants for 1st-year training can be assigned to eligible naval hospitals

without consideration of personal preference. For example, a senior medical student might elect to serve a clerkship at Naval Hospitals San Diego and Portsmouth, Va., in order to "size up" the hospitals and allow them to observe his performance. While he does receive pay as a clerk, the student must pay his own transportation expenses to and from these hospitals. When indicating his "choice" of hospital for internship, he might list Portsmouth first, and San Diego second. This student might be listed as the first choice among the applicants, by a program director at Portsmouth. Under the civilian matching program, such a student would be guaranteed a "match" with Portsmouth. But under the present Navy program, such a student might find himself assigned to Bethesda, or to some other hospital he had neither visited nor ranked.

If I were approaching graduation from medical school with the option of obtaining further training in the Navy, I would have grave reservations about applying with the knowledge that I might have no choice of location for such training. It seems to me that if the Navy is to compete favorably with civilian hospitals, it must offer the same opportunities for training — i.e., allow the applicant to participate in the selection of the graduate training programs which he will enter.

Further, it hardly seems fair for students to finance their own transportation to naval hospitals for interviews or clerkships, if these visits are of no significance in the selection process for graduate training.

If in holding this concept of the graduate-medical-education selection procedure I am in error, kindly publish some information to correct my misconceptions. There are others here whose understanding of this resembles my own.

LT John D. Yeast, MC, USNR
NAVREGMEDCEN San Diego, Calif.

The question raised by LT Yeast is valid and well founded. His concern is probably based on lack of understanding of how the selection process is managed. Following the withdrawal of the Navy from the National Intern-Resident Matching Program, it was the intent of the Bureau managers to pattern this selection process as closely as possible after that of the national program. Naturally, some factors peculiar to the Navy, such as geographic location, available positions, existing regulations, and the needs of the Navy Medical Department had to be given consideration. However, we think we did pretty well. The actual breakdown for 1975 placement following completion of our "Mini-Match" is shown as follows:

ASSIGNMENTS BY PROGRAM PREFERENCE

First Choice	80.1%
Second Choice	12.6%
Third Choice	5.3%
Fourth Choice	0.5%
Fifth Choice	1.5%
	<u>100%</u>

ASSIGNMENTS BY HOSPITAL PREFERENCE

First Choice	70%
Second Choice	16%
Third Choice	7%
Fourth Choice	4%
Fifth Choice	3%

It is our intent to make this matching process as responsive to the needs of our students as possible. It is under constant review to ensure its effectiveness.

Performance reports on all students who engage in clerkships are to be forwarded to BUMED, and such reports are regarded as an invaluable source of information upon which to base future selections for graduate medical-education programs.

*CAPT W.M. McDermott, Jr., MC, USN
Education Contributing Editor, and
Medical Corps Program Director,
HSETC, Code 4.*

ST. LOUIS SCORES

To the Editor: For those of us not serving on extended active duty, the Nov and Dec 1974 issues of *U.S. Navy Medicine* were particularly valuable. The detailed report of the SAC conference provided much useful information for those of us who attempt to recruit — such items as training and assignment opportunities, and the specific details of the VIP legislation, to mention but a few. CAPT Norman Cooley's article on the restructured reserve was concise, timely, and helpful. As a medical school liaison officer (MSLO) for the past 18 years, the "Scholars' Scuttlebutt" section warms the cockles of my heart. Who could fail to be impressed and challenged by Dr. Dan Hagan's record of 32 Navy students at the University of Miami?

A recurring theme in the SAC report is that the scholarship students are the hope of the future. In the "Scuttlebutt" column, both students and BUMED identify the need for better organization at the schools. Students also express the need for orientation, and help with uniforms. Wouldn't a flexible but required curriculum for these students (as little as 1-2 hours a month) be of value in this regard? At St. Louis University we meet every 4-6 weeks, but only about ½ of the students attend. (See photo.)

Finally, due to fiscal constraints, few of our 1975's are going to active duty Navy facilities. If these men are indeed the hope of the future, not sending them to duty could prove only penny-wise.



THE HOPE OF THE FUTURE.—Warming up for active service in the Navy Medical Corps are some of the Navy scholars at St. Louis University, Mo. (By courtesy of CAPT Matt H. Backer, Jr., MC, USNR, commanding officer NRMCMC 2812, MSLO, St. Louis University.)

In any case, to borrow your phrase, we like *your* style and look forward to each issue that arrives.

CAPT Matt H. Backer, Jr., MC, USNR
CO, NRMCC 2812
MSLO, St. Louis University, Mo.

"1600 IN, 48 OUT"

To the Editor: With the impetus toward metrication steadily gaining momentum here in the U.S., the world's last major refuge of the archaic English system of measurement, we in medicine are in a perfect position to help set the pace of change. We've been "metricated" — more or less — for years. Many a university medical center has gone completely metric. Which makes it all the more disturbing to read papers from naval medical sources still using grains, inches, pounds, and degrees Fahrenheit. As a leading force in Federal medicine the Navy, once and for all, ought to cast tradition to the winds and decree total metrication in its activities.

We have already come part of the way. Blood pressure is reported in millimeters of mercury, body surface in square meters, and most newer drugs, at least, in milligrams. Many of us have been around long enough to remember when a patient's fluid balance was given as cc's intake, ounces output, because the container used to measure the urine volume did not have metric graduations. Try a quick I/O balance in your head *that* way! And who has not been numbed by a calculation of body surface using a mishmash of a nomogram with the height in inches, the weight in pounds, and the answer in square meters? Or of prescribing pediatric dosages in milligrams per pound?

While we're at it, let's also give up the phony abbreviations for metric quantities usually encountered in

English-language medical literature, and start using world standard metric expressions.

<i>Unit</i>	<i>Standard*</i>	<i>Incorrect†</i>
milligram	mg	mgm, Mgm, mgrm
gram	g	gm, Gm, grm
kilogram	kg	kgm, Kgm, klg
milliliter	ml	cc, cu cm
deciliter	dl	dLt
liter	l(L)	lt, Lt, Lit
meter	m	mt, mtr, Mtr
square meter	m ²	sq mtrs

*No plural forms are used.
†Note: This list is far from exhaustive.

For the sake of exactness and unambiguity, decimal fractions should always show a zero in the units position:

0.3 g 0.55 m².

A temperature shown as 37° C is read as 37 degrees Celsius; centigrade is out.

Mere stylistic hairsplitting? Not at all. The intention is scientific accuracy and uniformity with the rest of the world. There is no room for compromise. After all, give 'em 2.54 cm and they'll take 1.61 km!

CAPT N. Ronis, MC, USN
BUMED Code 332 ☘

MISUSE OF OFFICIAL MAIL NOTED

Navy postal officials have expressed concern that some individuals are using indicia (franked mail) to send greeting cards and invitations to social functions. Postal officials emphasize that change of command and retirement ceremonies are considered official business, and invitations to these events are therefore authorized for indicia mailing. However, Navy balls, calls made and returned, receptions, and retirement party luncheons are social functions; indicia cannot be used to mail such invitations. Misuse of indicia violates OPNAVINST 2700.14C; penalties include a \$300 fine and possible disciplinary action under the Uniform Code of Military Justice.—*CHINFO Newsgram*, 4-75. ☘



EXCESSIVE RAW-FOOD COSTS

Provision of a high-quality ration has always been one of the objectives actively pursued by COs and food service managers. Fortunately, a monetary ceiling has not been imposed for raw-food costs, since summary reimbursement procedures from various funding authorities allow high raw-food costs to be averaged with low costs, presenting a summary billing at a cost within a fixed normal price. With this management flexibility, techniques such as utilization of food with a built-in labor factor (convenience food) have been adopted, with a concurrent reduction in labor costs (a nonreimbursable cost to the hospital).

In recent months, raw-food costs reported in hospitals have exceeded the acceleration rate indicated by the raw-food cost indices. A critical look at items of little nutritional value, which are served as adjuncts, may suggest areas of possible curtailment. For carbonated beverages alone, a 400% increase in costs has occurred over the past 6 months. Curtailment of such food items will probably have an unfavorable impact on morale, but with external publicity provided by the news media, the need for such action should be understood.—BUMED Code 00.☸

PROFESSIONAL GROOMING STANDARDS

Since the delivery of quality health care continues to be one of the major objectives of the Navy Medical Department, certain standards in the broad area of professionalism must be met. One important aspect of Medical Department professionalism involves the practice of truly professional grooming standards. The appearance and demeanor of Medical Department professional and

paraprofessional personnel continues to be a significant factor in creating respect and trust among our patients.

Fundamental to professional grooming standards is the continuing need for all Medical Department personnel who are actively engaged in patient examination and treatment procedures to be appropriately garbed. That means clean, neat uniforms, and suitable, well-fitting operating gowns, smocks, or laboratory jackets. It is also appropriate for Medical Department personnel to wear suitable caps and masks to cover hair, beards, and mustaches when conducting treatment procedures requiring any degree of cleanliness and asepsis.

Commands should ensure that Medical Department personnel comply strictly with U.S. Navy Uniform Regulations, 1969, and OPNAVINST 6240.6A, "Safety and Health Considerations Affecting the Wear of Facial Hair." Commands should continuously emphasize the importance of exemplary personal appearance and grooming in meeting professional standards desired of Navy health care professionals.—BUMED Code 00.☸

FAMILY PRACTICE PHYSICIANS AT NAV HOSP MEMPHIS

Many Navy personnel and their dependents in the Memphis area will have their own family doctor in Jul 1975, when 12 fully trained family practice physicians are assigned to Nav Hosp Memphis, Millington, Tenn. The intention is to use this newest of all medical specialties to enable all members of an average Navy family to see 1 physician for the majority of their health care.

It is anticipated that each family practice physician will assume responsibility for the comprehensive and continuing health care of approximately 400 families,

evaluating each patient's total health needs and coordinating the delivery of all health services, including the use of medical and surgical consultants.


Eventually each family practice specialist may be responsible for the care of 700 to 800 families. When possible, these physicians will be supported by family nurse practitioners and physician assistants.

Navy family practice physicians are also assigned to Nav Hosps Cherry Point, N.C., and Whidbey Island, Wash.; and to NAVREGMEDCEN Long Beach, Calif. The Navy also sponsors family practice residency training programs at NAVREGMEDCENs Camp Pendleton, Calif.; Charleston, S.C.; and Jacksonville, Fla.; and at the Nav Aer and REGMEDCEN Pensacola, Fla.

It is expected that 90 fully trained family practice specialists will be on active duty in the Navy by Jul 1975.

Use of the family practice physician reduces the need for other medical specialists, whose skills may then be reserved for complicated medical and surgical problems.

According to a recent definition approved by the American Medical Association, a family physician is one who practices in the discipline of family practice, and whose training and experience qualify him to practice in several fields of medicine and surgery, with particular emphasis on the family unit.

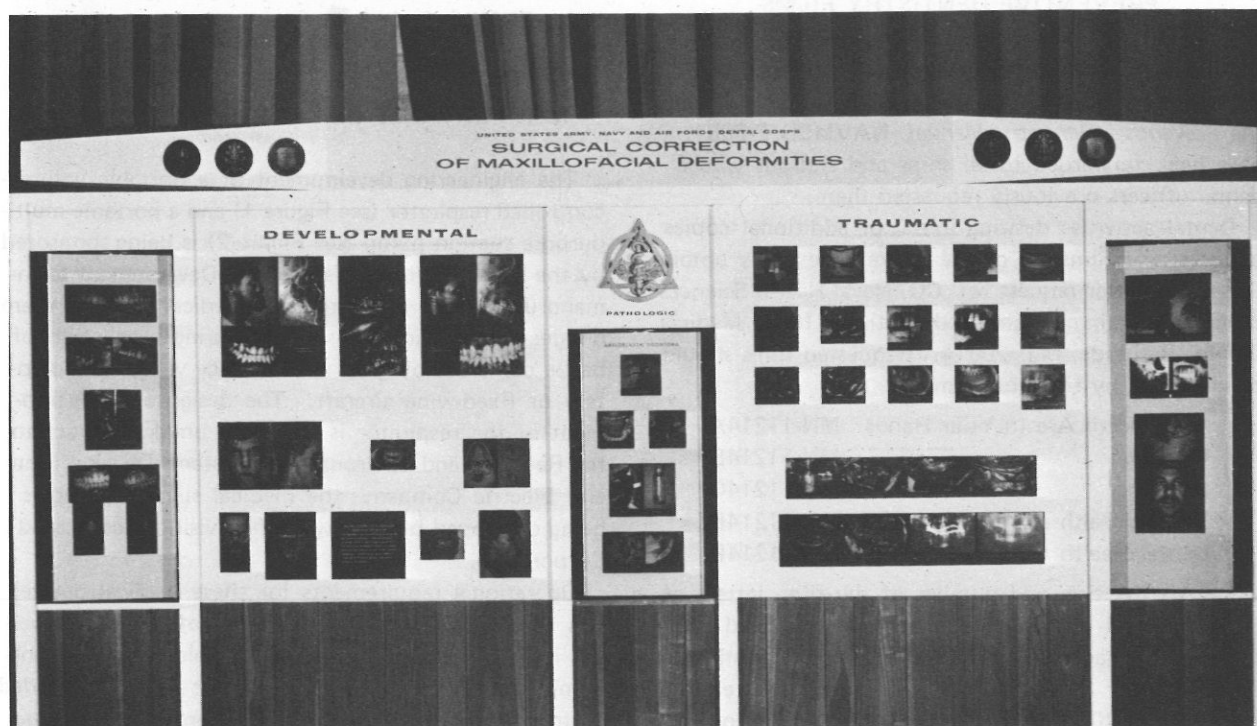
To meet the health needs of the U.S., the American Medical Association has recommended that 50% of all medical residents be trained in the specialty of family practice.—BUMED Code 3. 


JOINT ARMED FORCES DENTAL EXHIBIT

Every year, through the efforts of the Army, Navy, and Air Force Dental Corps, a joint Armed Forces dental exhibit is prepared for display at dental professional meetings throughout the U.S. The newest such exhibit, "Surgical Correction of Maxillofacial Deformities," was unveiled at the annual convention of the American Dental Association, held 10-14 Nov 1974 at the Sheraton-Park Hotel, Washington, D.C.

The exhibit consists of 2 stationary panels and 3 rotating drums, on which are displayed dozens of illuminated color transparencies and radiographs. Selected types of maxillofacial deformities are depicted, along with the surgical corrective procedures used to improve function and aesthetic appearance.

Each of the armed services provided a dental officer to monitor the exhibit. These monitors answered questions about developmental, traumatic, and pathologic maxillofacial deformities, and their surgical correction.—BUMED Code 6.



JOINT EFFORT.—Dozens of illuminated color transparencies are displayed on the newest joint Armed Forces dental exhibit, "Surgical Correction of Maxillofacial Deformities." 

CASUALTY CARE TRAINING PROGRAM

Guidelines for administration of the Navy Dental Corps Casualty Treatment Training Program are provided in BUMEDINST 3040.1C of 18 Apr 1972. Casualty care training is encouraged for all recently appointed Navy dental officers. Refresher courses are to be made available to dental officers who have not taken the course within the past 5 years.

Courses will be scheduled and conducted at the following locations according to the demand:

Naval Dental Center, San Diego, Calif.

NAVREGDENCEN Norfolk, Va.

NAVREGDENCEN Great Lakes, Ill.

Dental officers who complete 1 of the above courses are encouraged to provide ongoing training in casualty care, as well as refresher courses to officers and enlisted personnel when needed. A copy of *Casualty Care Training Manual for Dental Personnel*, NAVMED P-5073 (Revised 1969) is provided each officer who completes the basic course. Designed as an instructor's manual, it contains complete lesson plans, lists of reference texts and available motion picture films and slide sets, and sources of other instructional aids that are useful in casualty care training.—BUMED Code 6.☞

PREVENTIVE DENTISTRY FILMS

Copies of the Navy Dental Health motion picture series, which are described in detail in appendix IV of the *Preventive Dentistry Manual*, NAVMED P-5087, have been forwarded to all ships and stations whose dental officers previously requested them.

Dental activities desiring initial or additional copies of individual films, or of the entire series, may obtain them by a letter request to: CO, Naval Health Sciences Education Training Command, National Naval Medical Center, Bethesda, Md. 20014. Requested films should be identified by title and number:

Your Teeth Are In Your Hands	MN-11214A
Flossing	MN-11214B
Brushing	MN-11214C
Dental Health and You	MN-11214D
Dental Health Quiz	MN-11214E

Besides the title and number of the film, letters of request should include the quantity desired, and the preferred package. Films are available in conventional 16 mm; Super 8 mm in cassettes for use with either the Fairchild 70 series or Kodak Supermatic 60 projection equipment; or in cassettes for 3/4-inch Sony video-tape systems.—BUMED Code 6.☞

COMPREHENSIVE DENTISTRY PROGRAM

The 1st-year graduate course in general dentistry is being redesignated as the graduate course in comprehensive dentistry; it is designed primarily for officers desiring to develop a high degree of proficiency in the all-inclusive practice of dentistry. The aim of the course is to motivate these officers in the areas of leadership and personnel management, and to prepare them for higher responsibilities. Completion of the graduate course in comprehensive dentistry is a prerequisite for further training, and serves as the 1st year of the residency program.

The 2nd-year residency program in comprehensive dentistry is being expanded from 3 to 8 dental officers for FY 1976. The primary emphasis of this training is on clinical practice and instruction.

The Comprehensive Dentistry Program has been developed in response to increasing needs for dental officers who are trained to a high level of expertise in all disciplines. Designed around interdisciplinary clinical practice, the program will develop dental officers capable of treating a significant number of those cases usually seen by specialists in each of the clinical disciplines.

It is neither economically nor professionally possible to provide every naval activity with specialists in all disciplines of dentistry. Additionally, the general dentist will be rewarded with professional growth and satisfaction.—BUMED Code 6.☞

NEW PORTABLE LIFE-SUPPORT EQUIPMENT

The engineering development of a portable volume-controlled respirator (see Figure 1) and a portable multi-purpose suction pump (see Figure 2) is being sponsored by the Naval Medical Research and Development Command (NMRDC). Both items of medical equipment are designed to provide life-support during evacuation of battle casualties by ground or surface vehicles, and rotary or fixed-wing aircraft. The design and development of the respirator is currently under contract to the Re-Entry and Environmental Systems Division, General Electric Company; the medical suction pump is being developed by the Aviation Division, Sundstrand Corporation.

Operational requirements for these medical devices was 1st identified during treatment of combat casualties in the Vietnam war, when available respirators and pumps did not provide the life-support capability needed during transport of casualties, or when electrical power was not available. The development effort has involved close coordination with the Army and Air Force while

developing the operational characteristics, determining military specifications, and jointly testing the prototypes.

The respirator being developed is designed to operate up to 4 hours without an external AC/DC power source or oxygen supply. To enhance its flexibility, the respirator will be able to operate in either closed-cycle or open-cycle modes. During closed-cycle operation, re-spired gases are continually recirculated through a closed loop, with CO_2 being removed by a chemical scrubber, and consumed O_2 replenished from an internal oxygen source. The respirator can therefore be used in the field or during evacuation of the patient. In the hospital, or in medical evacuation aircraft where external AC/DC power and oxygen are available, the unit can be operated in the open-cycle mode for indefinite periods.

Seven vital respiratory functions will be automatically controlled by the respirator: tidal volume, inhalation flow rate, inspiration pressure, exhalation time, oxygen partial pressure, sigh control, and assist/control operation selection. Values of tidal volume, oxygen partial pressure, inspiration pressure, oxygen storage pressure, battery voltage, and elapsed use-time will be displayed on the front panel. In addition, visual and audible warning devices are incorporated in the respirator to indicate any variation of these parameters above or below the designated values.

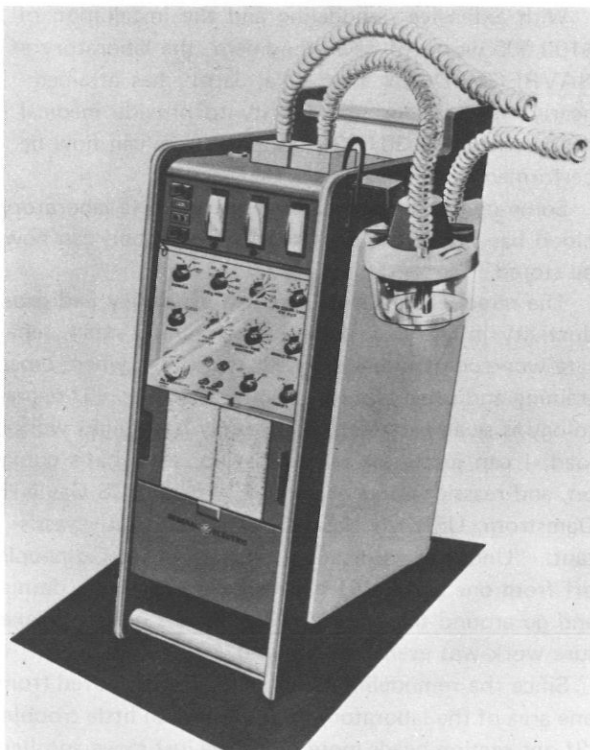


Figure 1.—Artist's conception of the new, portable, volume-controlled respirator under development for the Navy by the Re-Entry and Environmental Division, General Electric Company.

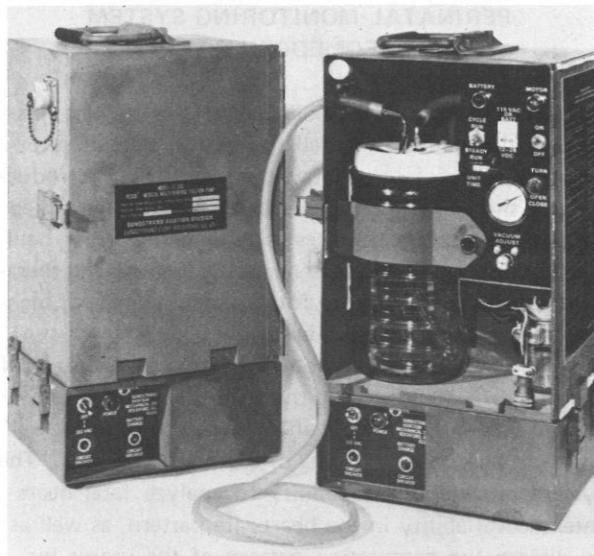


Figure 2.—Final test and evaluation model of the portable multipurpose medical suction pump developed for the Navy by the Aviation Division, Sundstrand Corporation.

The new suction pump is a self-contained, portable, multipurpose suction device capable of providing continuous suction of 254 mm of mercury for at least 4 hours without an external AC/DC power source. Highly flexible, the pump can provide nasopharyngeal, tracheal, and chest suction, as well as intermittent intestinal suction. Early developmental prototypes of this pump were extensively evaluated by the U.S. Air Force in Vietnam, as well as by the Naval Support Activity Hospital, DaNang, RVN.

Both items of equipment are designed to withstand rugged field use. They will require only minimal maintenance, and have special design features that prevent interference with aircraft navigational systems. The equipment can easily be disassembled for cleaning, and may be sterilized by conventional means.

The suction pump is currently in the final test and evaluation phase, and is expected to be available for procurement by FY 1976. Engineering production units of the portable respirator will be available for final test and evaluation in FY 1977.

The volume-controlled respirator and the multipurpose suction pump represent a significant advancement and improvement over existing commercially available equipment. It is anticipated that these new items will have wide acceptance and application throughout the 3 military medical departments, as well as in the management and treatment of critically ill or injured patients by the civilian medical community.—LCDR James C. Bond, MSC, USN, Head, Trauma Care Division, NMRDC, National Naval Medical Center, Bethesda, Md. 20014.

PERINATAL MONITORING SYSTEM AT NAVREGMEDCEN OAKLAND

NAVREGMEDCEN Oakland, Calif., is the 1st hospital in the Nation to install the central alert monitoring system for total perinatal surveillance. The introduction of the perinatal intensive care system was marked by a symposium on advances in perinatal medicine, held 7-8 Feb 1975, at which the newest diagnostic and therapeutic modalities available for the management of high-risk pregnancies were discussed.

According to RADM Robert Baker, MC, USN, chief of the Ob/Gyn Service at the medical center, the new system will enable physicians and nurses to "observe" the fetal heart-beat patterns of expectant mothers. The system provides the capability to analyze fetal heart rate and variability in the heart-rate pattern, as well as to discern the contraction pattern of the uterus by judging the intensity and duration of labor pains. The memory portion of the system can display the last 8 minutes of tracings.

The mother in labor is attached, by means of small wires, to a bedside monitor which records her contraction pattern, as well as the fetal heart rate. Through a wall socket, this information is then fed to a central

alarm and read-out station at the nurse's desk. If an abnormality is detected by the alert system, a light begins to flash and a beeper may also sound.

A number of problems can be detected:

- A *baseline* alert is given when the fetal heart rate departs from baseline limits.

- A *deceleration* alert occurs when the fetal heart rate slows during the 2nd half of a labor pain, or shortly after the contraction. The nurse or physician can study the record to determine which of the several types of decelerations has occurred, and whether any treatment is necessary.

- A *uterine activity* alert occurs when the contractions are too strong, or when not enough rest time occurs between contractions.

- A *variability* alert occurs when the fetal heart rate shows a particular pattern called "decreased variability," which in some situations can be a danger sign.

- An *improper data* alert is activated when the incoming data is of such poor quality that an adequate analysis cannot be made.—PAO, NAVREGMEDCEN Oakland. ☛

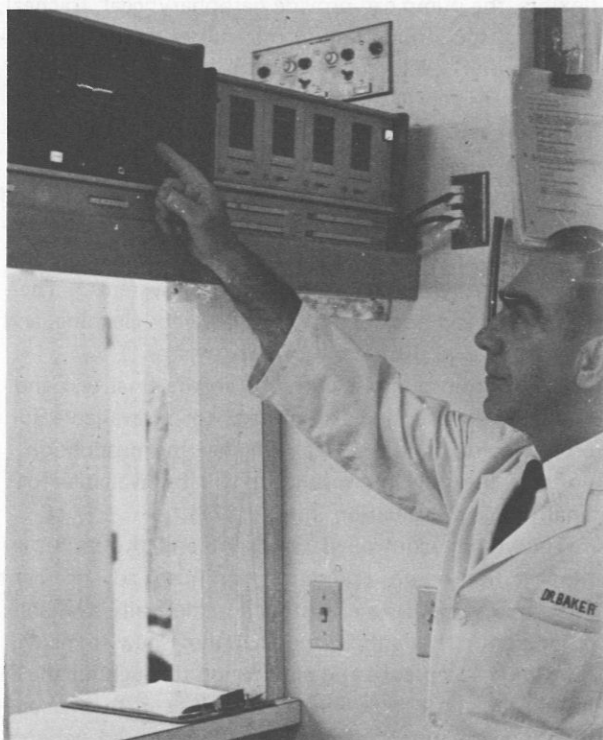
REMODELED LAB FOR NAVREGMEDCEN YOKOSUKA

With extensive remodeling and the installation of \$100,000 worth of new equipment, the laboratory at NAVREGMEDCEN Yokosuka, Japan, has attained nearly twice its former capacity to provide medical support. Nearly 30,000 laboratory tests can now be performed each year.

Some of the new equipment went to the laboratory blood bank, where 600 pints of whole blood can now be stored.

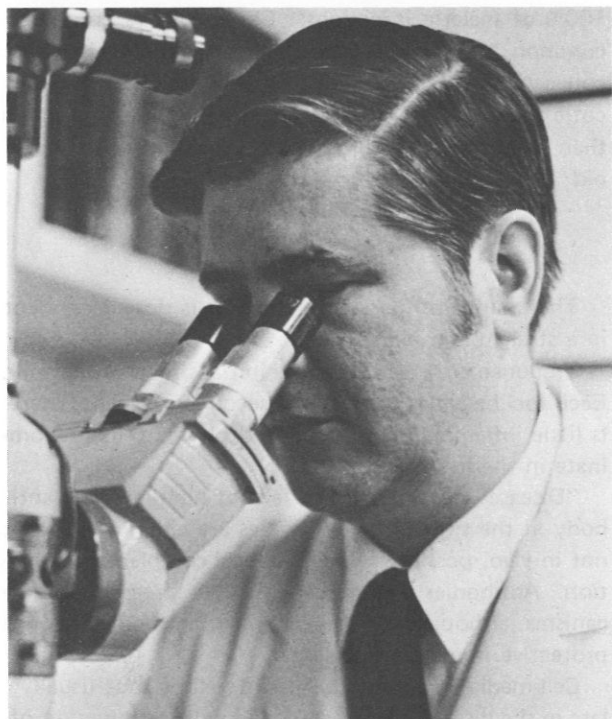
The remodeling effort increased efficiency and productivity in the laboratory by combining small, separate workrooms into a spacious work area where cross-training and assistance are readily available. "If hematology is swamped and biochemistry has a light workload, I can just look across the lab, see what's going on, and reassign some personnel," says HMCS Gayle H. Damstrom, USN, the laboratory administrative assistant. "Under the old set-up, with walls cutting people off from one another, I had to stop what I was doing and go around the lab every 30 minutes or so to make sure work was evenly distributed."

Since the remodeling, equipment can be moved from one area of the laboratory to another with little trouble. "If one section needs more room, we just move another section out of the way," HMCS Damstrom explains. "The working areas are virtually interchangeable."

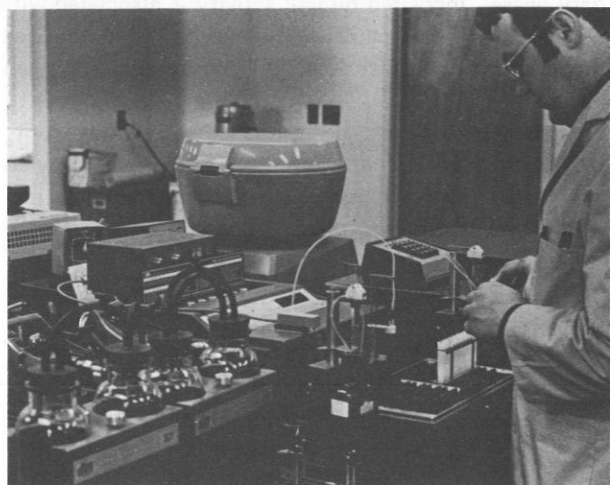


LABOR MONITOR.—RADM Robert Baker, MC, USN studies information on the central alert electronic monitoring system newly installed at NAVREGMEDCEN Oakland for perinatal surveillance.

Expenses for renovation were limited to the cost of material. "The Navy saved money by letting the Seabees carry out the renovation as a training project," says LCDR S.H. Myster, MC, USN, director of laboratory services. "This way nearly \$100,000 was saved, and an outstanding job was done."—PAO, COMNAVFORJAPAN.



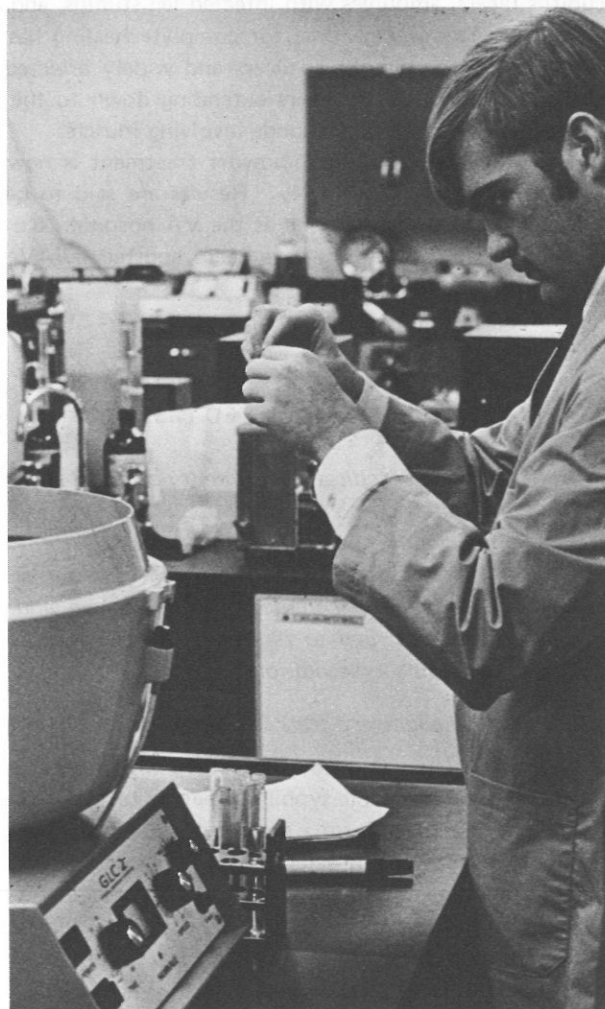
HEAD MAN.—LCDR S.H. Myster, MC, USN, head of laboratory services at NAVREGMEDCEN Yokosuka, Japan, examines tissue slides under a microscope. (Photos by JOSN Tim Carney, USN.)



NEW AT YOKOSUKA.—HM1 Gary Snyder, USN performs a biochemistry test using the Gilford 3400E dual-reagent analyzer in the newly remodeled laboratory at NAVREGMEDCEN Yokosuka.



HEMATOLOGY.—HM1 William Krill, USN takes a reading on the ZBI-Six machine for performing hematology counts, part of the new equipment recently installed at NAVREGMEDCEN Yokosuka.



PREPARES A SPECIMEN.—HM3 David Morris, USN prepares a blood specimen for separation by the Sorvall GLC-2 centrifuge.

GUM POWDER HEALS BED SORES

A Veterans Administration (VA) nurse in Louisville, Ky., has discovered a cure for skin ulcers, or "bed sores."

Gladys C. Wallace had tried every recognized method of treating a gunshot wound in the abdomen of a 21-year-old, paraplegic, Vietnam veteran. When the wound would not heal despite constant care, she sprinkled the patient's abdomen liberally with karaya vegetable-gum powder, and wrapped the area in a well known, commercially available plastic wrap. Healing started the next day, and was complete within a week.

A surgeon and Mrs. Wallace then used the gum powder to treat the veteran's leg ulcers and a deep spinal ulcer, with subsequent healing of all areas.

Since then, the karaya vegetable-gum powder has been successfully used on more than 100 patients in the hospital, including paraplegics and quadriplegics with decubitus ulcers, amputees with infected leg stumps, and diabetics. The average time for complete healing has been 7 days for superficial ulcers and widely affected skin areas, 14 days for ulcers extending down to the muscle, and 75 days for wounds involving muscle.

The karaya vegetable-gum-powder treatment is now used in other hospitals in Ky. Results are said to be comparable to those observed at the VA hospital. No ill effects or complications have been reported.—NAV-NEWS, 25 Oct 1974.☛

JOSEPH EARLE MOORE SYMPOSIUM ON SEXUALLY TRANSMITTED DISEASE*

The attention of Medical Department personnel is invited to the following observations of the Joseph Earle Moore Symposium on Sexually Transmitted Disease, as reported by one of the attendees. This information is presented as a personal comment by the author, and should not be construed to represent an official summary of symposium presentations.

Laboratory tests for syphilis

It was suggested that any laboratory which detects a positive or questionable syphilis screening test (VDRL, CPR, etc.) should perform a more definitive test, such as the FTA-ABS, on the sample. This test would produce better data for the physician, would create less bother and worry for the patient, and would increase efficiency of patient treatment. This procedure would be valuable in Navy laboratories, wherever possible.

*The Johns Hopkins Medical Institution, Baltimore, Md., 6-7 Oct 1974.

It was pointed out that weakly reactive or low-titer positive syphilis tests are not accurate, regardless of the test performed. Even the FTA-ABS is not as specific as was once believed. Patients with such results must be studied more aggressively.

Patients with biologic false positive (BFP) syphilis serology reactions were discussed. Almost any condition can produce acute BFPs, as is the case in almost 100% of malaria infections. Chronic BFPs are less common, but occur in 60% of leprosy patients, in many collagen diseases, and are commonly found among narcotic addicts. Chronic BFPs are more common in women than men, and are found in the young more than in the old; familial aggregations have been found.

Biology of syphilis

The incubation period for syphilis is dose-dependent in a straight-line relationship.

Treponemes spread from the initial site, and multiply. Each focus becomes the site of a secondary lesion. There is little inflammation at sites, and plasma cells predominate in the infiltrate.

"Disease" develops in the face of high levels of antibody at the sites. The antibodies are *cidal in vitro* but not *in vivo*, possibly related to local complement depletion. Antibodies may prevent further spread of the organisms, although passively provided antibodies are not protective in exposed patients.

Cell-mediated immunity also develops, but usually late in the disease. It is associated with termination of the secondary phase, but also appears promptly after therapy. Therefore, it is suspected of being a response to, rather than the cause of termination of the secondary phase. Increased disease activity is associated with decreased levels of cellular immunity. It is hypothesized that cellular immunity is suppressed by excess antigen levels.

It may be that antigen (treponeme)-antibody complexes are still infectious and require inactivation by an antiglobulin (anti-antibody), such as rheumatoid factor, which is increased in syphilis patients.

Contrary to popular opinion, progression of lesions may occur in the face of treatment in 60% of neurosyphilis cases.

The most common clinical evidence of neurosyphilis is pupil abnormality, including inequality in size or reaction to light, and irregularity of shape.

Gonorrhea epidemiology

Males are more efficient transmitters of gonococcus. Some 50-70% of the female contacts of a symptomatic

male will develop infection; the rate is lower in male contacts of an infected female. However, females are more important in the spread of disease, due to the size of the reservoir in asymptomatically infected females.

Previous infection is the greatest "risk factor" or predictive variable for subsequent gonococcal infection. There seems to be a relatively small number of transmitters who act as foci in disseminating the disease.

Some evidence was presented suggesting that pharyngeal infection was more likely to result in disseminated gonococcal infections, such as arthritis. Also strain differences exist; those strains most sensitive to penicillin seem to be most likely to produce disseminated disease.

Other sexually transmitted diseases

Hepatitis B. Unpublished British data indicate that about 40% of cases of hepatitis B are sexually transmitted, especially among homosexuals.

Reiter's syndrome. This disease is now known to be of genetic predisposition associated with the presence of the HL-A-27 antigen. The condition is precipitated by nongonococcal urethritis or shigella infections in susceptible individuals.

Herpes simplex. The consensus was that herpes simplex virus type II is related to cervical cancer, but that definitive proof is yet lacking. Herpes simplex virus type I may be related to lip cancer. Herpes simplex virus is the most common cause of genital ulcers, but must be differentiated from syphilis. The virus can be sexually transmitted.

Chancroid. Speakers claimed that chancroid is a very rare disease, and that clinical diagnosis is not reliable; laboratory confirmation is required. Specifically, it was stated, on unknown authority, that most cases reported by the Navy in the Pacific were not really chancroid. Chancroid is most commonly confused with lesions resulting from infected human bites.

Granuloma inguinale. This is not really a sexually transmitted disease, as it is not transmitted even in sexual partnerships of long duration. The condition is rare. Most cases represent reactivation of old disease, rather than new infections.—LCDR L.J. Melton III, BUMED Code 553.☞

VIRAL HEPATITIS . . . (TYPE A & B)

The general term, "viral hepatitis," commonly refers to hepatitis resulting from either of 2 presumptive viruses. Recent medical conferences have suggested that the term viral hepatitis should be subdivided, on epidemiological grounds, into: (1) Viral Hepatitis Type A

(formerly infectious hepatitis); and (2) Viral Hepatitis Type B (formerly serum hepatitis).

The use of this simple classification will allow Medical Department personnel to deal with cases of suspected hepatitis promptly and appropriately.

When confronted with a case of suspected hepatitis, first get laboratory confirmation (if available) of your clinical diagnosis. Are liver enzymes (SGOT, SGPT) elevated? Bilirubin up? Bile up? Bile in the urine? Most important, check for the presence of the hepatitis B antigen (also known as Australia antigen).

If the hepatitis B antigen is present, you are probably dealing with hepatitis transmitted by inoculation. The incubation period for Type B is 2-6 months, so you may have to look back for a history of inoculations. According to informed opinion, Type B is almost always spread by inoculation, and is not communicable if adequate sanitary precautions are observed in treating the patient. Immune serum globulin immunization of contacts is *not* necessary.

If hepatitis B antigen is not present, your patient most likely has Type A (infectious hepatitis). Type A is a contagious disease spread by fecal-oral, parenteral, and possibly respiratory routes. The virus is present in the blood during early infection, and is excreted in feces during the first 1-2 weeks of illness.

Common source outbreaks of Type A hepatitis most often result from fecal contamination of food or water. Spread is usually continued by person-to-person contact. Subclinical cases are common, and a possible source of spread. The disease has a low mortality, but some patients may be incapacitated for several weeks. There is no specific treatment. Spread from the patient is reduced by appropriate precautions, such as good personal hygiene; the sanitary disposal of excretions; and sterilization of eating utensils, and body and bed linen, after use.

Immune gamma-globulin immunization given to close contacts of the patient can prevent, or modify the clinical illness. The dose is .01 cc per body pound. If the patient is not working in a job which would allow exposure of your entire crew or unit personnel (such as a mess cook), concentrate your attention on those coming in close contact with him during duty — his berthing companions, liberty pals, those who share the head with him, and personnel at work. The incubation period for Type A is 10-50 days. So think back about 25 days from the day on which hepatitis was diagnosed. Are there others who were exposed to him before the illness appeared? Anybody on TAD or PCS?

Finally, send a message to the Environmental and Preventive Medicine Unit in your area. Describe the situation, and let us know if you need some advice.—*Pacific Health Bulletin*, No. 71, Jan 1975.☞

MORE ON HEPATITIS

Oregon has observed several outbreaks of viral hepatitis A in day-care centers. Their investigation of these outbreaks showed that there was transmission within the centers; that most of the cases were anicteric; and that there was a notable incidence of icteric hepatitis among the other adult or adolescent friends, parents, grandparents, older siblings, and relatives of these children. Conclusions were that day-care centers are very efficient disseminators of viral hepatitis. If a similar situation develops or exists in Hawaii, anicteric hepatitis would be an important consideration in the differential diagnosis of abdominal discomfort, anorexia, and fever in young children.—Hirschy, ID: *Communicable Disease Report*, Hawaii State Department of Health, Epidemiology Branch, 30 Nov 1974, as noted in *Pacific Health Bulletin*, No. 71, Jan 1975. ☞

HUMAN GOALS

On 1 Jul 1974 the Navy Human Resource Development Project, the Navy's only designated personnel project, was disestablished. The Project Office (Pers-6c), which for the past 3 years has developed, implemented, and monitored the crucial and oftentimes sensitive programs associated with race relations, education, drug abuse, alcoholism, overseas diplomacy, and organizational development and management, had served its purpose with the institutionalization of Human Goals programs throughout the Navy. These programs are the foundations upon which the Human Goals Plan (OPNAVINST 5600.6A) was built.

Pers-6 will be the program coordinator in the Bureau of Naval Personnel, acting for the program sponsor (OP-01P) to advise on policy matters, give fiscal and personnel support, and monitor program status. In addition certain field activities, notably the Human Resource Management School at Memphis, and Navy drug and alcohol rehabilitation centers, that still come directly under CHNAVPERS, will be administered through Pers-6.

The accompanying chart reflects incorporation of the Human Resource Development Project Office into the Pers-6 organization.

The Equal Opportunity Division (Pers-61) has the responsibility of monitoring Navy policies and directives, relating them to the Human Goals Program with respect to equal opportunity. This office will initiate, develop, and review Navy policy, practices, and procedures of equal opportunity and equal treatment of all members of the Naval service, and will maintain liaison with field

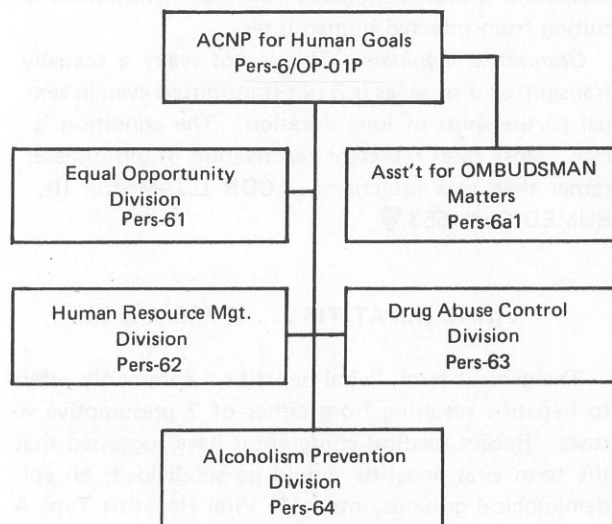
equal-opportunity assistants. Coordination of the Phase II Equal Opportunity Program will be effected by Pers-61 upon completion of the on-going pilot efforts.

The Human Resource Management Division (Pers-62) is responsible for establishing objectives, and developing and coordinating policies and operations concerning or directly affecting the achievement of Human Goals in the Human Resource Management (HRM) areas. This office will also provide assistance to and liaison with commanders-in-chief, the Chief of Naval Education and Training, and other echelon-2 and -3 commanders. Under the purview of Pers-62 are: race relations education (formerly Pers-6c11), organizational development and management (formerly Pers-6c12), overseas diplomacy (formerly Pers-6c13), and drug abuse education (formerly Pers-6c24).

The Drug Abuse Control Division (Pers-63) retains the mission function and responsibilities of its predecessor, the Drug Abuse Control Program Office (Pers-6c14) in policy formulation, sponsorship for Navywide drug abuse control programs, and coordination of rehabilitation efforts. Responsibilities include administration of the Naval Drug Rehabilitation Centers at Jacksonville, Fla., and Miramar, Calif. Additionally, Pers-63 provides assistance to 2nd-echelon commanders in the operations and management of the counseling and assistance centers.

The Alcoholism Prevention Division (Pers-64) also retains the mission, functions, and responsibilities of its predecessor (Pers-6c15). It provides direction, management, coordination, and sponsorship of programs directed at alcohol abuse prevention, education, identification, and rehabilitation. Pers-64 provides managerial and policy guidance to the alcoholism rehabilitation

PERS-6/OP-01P ORGANIZATION



centers, the alcohol rehabilitation drydocks, and the alcoholism training unit at San Diego. This division also provides assistance to lower echelon commanders regarding problems encountered with alcoholism.

The OMBUDSMAN Office retains its function to provide officer and enlisted personnel individualized attention to their problems and requests for information.—*The Officer Personnel Newsletter* 19(2):3-4, Oct 1974.☞

BROTHERHOOD OF GOODWILL DONATES TURKEYS

In an effort to aid less fortunate members of the community, 4 Navy men attached to the National Naval Medical Center (NNMC), Bethesda, Md., last year formed the Brotherhood of Goodwill. Their 1st

endeavor saw them giving Christmas turkeys to 250 needy families.

The 4 sailors (HM1 James Bankston, DT2 William Henry, HN Chilton Alphonse, and HN Gene McCarty) wanted to "show that we care about folks in the surrounding community," HM1 Bankston said. He added that they hoped their example would lead others to similar efforts.

After getting the Command's approval, the members solicited donations from military and civilian staff members of NNMC. "The response was really outstanding, just overwhelming," HM1 Bankston reported.

The turkeys were distributed at NNMC on 21 Dec 1974. Among those in attendance were Congressman Walter Fauntroy; RADM R.G. Williams, Jr., MC, USN, CO of NNMC; and representatives of local and national civic organizations.—PAO, NNMC, Bethesda, Md.



GOODWILL GESTURE.—HM1 James Bankston, USN describes the goals of the Brotherhood of Goodwill as the group donates Christmas turkeys for needy families. Participating in the ceremony are (front row, left to right): RADM R.G. Williams, Jr., MC, USN, CO of NNMC; Congressman Walter Fauntroy; and CAPT David Wilson, MC, USN, chairman, Department of Orthopedics, NNMC. Seated in the back row are representatives of the Friendship House, Washington, D.C., and the National Association for the Advancement of Colored People.☞

EMERGENCY MEDICAL COURSE AT NAV HOSP MEMPHIS

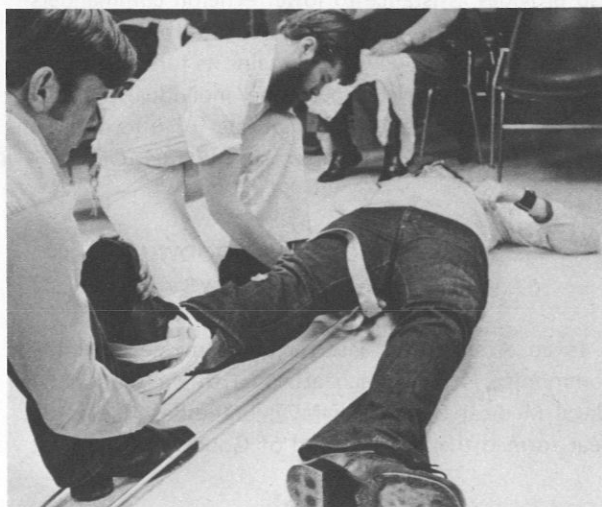
At the Naval Hospital Memphis, staff members can earn college credit while receiving supplemental training in emergency medical services.

Through a cooperative effort, Shelby State Community College, Memphis, now offers a course in emergency medical services at the Memphis naval hospital. Twenty-one students enrolled for training in the fall, and 15 in the winter of 1974. Enrollment is expected to increase in the spring, as word of the course gets around.

The course covers such areas of emergency medical care as anatomy and physiology, airway obstructions, shock, bleeding, fractures, and bandages. In addition to a discussion of the theory of emergency medical care, time is set aside for practicing emergency-care procedures. Students gain further practical experience by working in the emergency room of a local hospital for two 5-hour periods. To supplement the instructor's presentations, selected medical specialists occasionally serve as guest lecturers.

During the latter part of the course, the students learn how to remove a victim from an automobile after an accident. They also spend 4 hours on a specially designed automobile driving range, a useful exercise for students who will drive ambulances and other emergency vehicles.

Students who complete the Emergency Medical Services Course with a passing grade receive 6 quarter hours of credit from Shelby State Community College. In addition, students who pass the State of Tennessee



PRACTICE SESSION.—Students practice the techniques required of an emergency medical technician. Here a half-ring Thomas leg splint is applied using a volunteer "patient."




A JOB FOR EVERYONE.—Students form small groups to practice the various skills needed in the delivery of emergency medical care.



PREPARING FOR EMERGENCIES.—Students in the Emergency Medical Services Course at Nav Hosp Memphis practice applying a short spineboard.

certification examination are awarded provisional certification as emergency medical technicians. After completing 3 months of ambulance duty as a provisionally certified emergency medical technician, a student becomes eligible for the patch certification given in Tennessee.

Whether or not State certification is achieved, the techniques and information acquired in the Emergency Medical Services Course should prove invaluable to persons who work in situations where emergency medical treatment is needed.—Fred D. Jackson, educational advisor, Navy Campus for Achievement, Memphis, Tenn. 

UNITED STATES NAVY MEDICINE

CORRESPONDENCE AND CONTRIBUTIONS from the field are welcomed and will be published as space permits, subject to editing and possible abridgment. All material should be submitted to the Editor, *U.S. NAVY MEDICINE*, Code 0010, Bureau of Medicine and Surgery, Washington, D.C. 20372.

NOTICES should be received not later than the third day of the month preceding the desired month of publication.

PROFESSIONAL PAPERS AND ARTICLES should be typewritten on one side of the paper, double spaced, with liberal margins. Original and one carbon copy are required. Generic names of drugs are preferred. If the author's present affiliation differs from that under which the reported work was done, both should be given. Unless otherwise indicated, it will be assumed that the article presented has not been previously printed or delivered elsewhere. Papers which have been delivered or printed elsewhere, covered by copyright, cannot be reprinted in *NAVY MEDICINE* without the written permission of the author(s) and copyright holder. It is the responsibility of the author(s) to inform *U.S. NAVY MEDICINE* when the material submitted has been previously used or copyrighted. In selecting manuscripts for publication in *NAVY MEDICINE*, preference is given to original articles.

ILLUSTRATIONS are acceptable when they substantially contribute to the understanding of the basic material. Only distinct, glossy, black and white **PHOTOGRAPHS** which are functional can be printed. Prints should not be mounted, stapled, clipped or otherwise deformed and can be marked lightly on the back with the figure number. Legends should be typed consecutively on a separate paper with the indicated figures; credits for the photography may also be included. Identities of patients should be masked. **DRAWINGS, TABLES AND GRAPHS** should be minimal in number and properly labeled. They should be neatly done in heavy black ink on white paper, one to a page.

SUGGESTIONS are invited concerning *U.S. NAVY MEDICINE*, its content and form.

U.S. NAVAL PUBLICATIONS and FORMS CENTER
ATTN: CODE 306
5801 Tabor Avenue
Philadelphia, Pa. 19120
Official Business

POSTAGE AND FEES PAID
DEPARTMENT OF THE NAVY
DoD-316



DATA SERVICES.—The staff of the Naval Medical Data Services Center, a tenant command at the National Naval Medical Center in Bethesda, Md., is responsible for the coordination and operation of integrated data-processing services for naval medical statistical and workload systems; and for providing automatic data-processing services as required by the Bureau of Medicine and Surgery. For a closer look at the Center, see pp 4-7.